Shaping the Future Amid Decline: Integrative Strategies for Aging Koreans and Migrant Workers in South Korea's Shrinking Regions

by

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Submitted to the Department of Urban Studies and Planning in partial fulfillment of the requirements for the degree of Master in City Planning

at the

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Abstract

This thesis investigates the intricate dynamics between aging Korean populations and foreign migrant workers in South Korea's shrinking regions. By conducting an in-depth analysis of four cities, each representing a unique aspect of the nation's projected demographic shifts, this study evaluates how urban planning and policy can foster resilient communities amidst significant societal changes. Utilizing a mixed-methods approach, which includes quantitative data alongside interviews and surveys with 81 stakeholders—from local officials to migrants and elderly residents—the research uncovers complex relationships and systemic barriers that impact community cohesion and demographic stability. The findings provide a nuanced perspective on how strategic urban design and innovative policy initiatives can drive transformative growth in these areas, turning demographic challenges into opportunities for development. The analysis highlights the untapped potential within vulnerable populations and recommends a series of interventions, including integrating educational elements into urban infrastructure and promoting cultural inclusivity through diverse partnerships. This approach seeks to reinvigorate shrinking regions, transforming them into vibrant, sustainable communities. Ultimately, the study underscores the critical role of inclusive urban development in revitalizing areas facing demographic and economic decline.

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I owe immense gratitude to all the professors and mentors whose insights and guidance have been invaluable. Their expertise and dedication have not only shaped this research but have also profoundly influenced my personal and professional development. Learning from esteemed individuals whom I have long admired has been an honor, creating lasting memories and foundational experiences in my academic and personal life.

My peers and friends have provided a steadfast network of support, offering both academic collaboration and the much-needed respite and laughter that sustained me through challenges. Their presence has been a source of immeasurable enrichment, embedding within me a deep sense of gratitude for the connections that have now become an integral part of who I am.

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I extend my sincere thanks to all the participants of my study, whose willingness to share their insights and personal narratives has enriched the depth and relevance of this work. Their perspectives have been instrumental in broadening the scope of this research, adding both complexity and authenticity.

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This thesis, therefore, is not solely a product of my efforts but a confluence of many currents—of guidance, inspiration, and support from numerous quarters. To all who have touched this journey, your influence has been indelible, and your support cherished. I thank you all profoundly.

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1. Preface

In my earliest memories of school, our textbooks celebrated a "proud, homogeneous people," weaving the story of a Korea united and indomitable, bound by centuries of shared adversity and a meteoric rise from the ashes of war and poverty. These narratives extolled the relentless drive that propelled us from destitution, praising the resilience that had withstood countless invasions over centuries. Factories burgeoned in cities; the New Village Movement revitalized our countryside—crafting an image of a societal fabric that seemed invincibly robust, a cornerstone of Korea's rapid ascent on the global stage.

Yet, as I matured, I recognized that the societal fabric was far more intricate and fractured than our textbooks depicted. The allure of Seoul, with its concentric circles of urban prosperity, inexorably drew the young and ambitious. As opportunities centralized in the capital, a cycle of competition escalated into a rigid socio-spatial hierarchy, making migration to Seoul a systemic inevitability, leaving scant room for alternatives. My early design research in 2012 drew parallels with Durkheim's concept of 'anomie,' describing a state of normlessness that emerges from rapid industrialization, leading to widespread feelings of disconnection and purposelessness. In Korea, the relentless pressures of modernity eroded traditional communal bonds, intensifying this disconnection. This normlessness not only rendered personal goals elusive but also bred profound discontent, contributing to the world's highest rates of suicide and elderly poverty—a grim harbinger of a future crumbling under the weight of its own neglected corners, where systemic spatial inequalities continue to siphon life from our societal veins.

Fast forward twelve years, and the urgency of these issues has only intensified. The dreams once nurtured by a booming economy now resonate more in the quiet of aging alleyways and underused playgrounds than in the throbbing hearts of our cities. The relentless pursuit of economic growth has cast a long shadow, overshadowing the lives it was meant to enrich and leaving behind a society grappling with profound demographic and social challenges. Despite government efforts pouring trillions of won into stemming demographic decline—striving to inch up a fertility rate that continued to hit new record lows each year, reaching another historic low of 0.72 in 2023—these efforts persist as an uphill battle against the tide of demographic transition.

Outside the bustling metroplex of Seoul, in the regions referred to as 'Jibang,' discussions of demographic extinction have become alarmingly frequent, marked ominously with predictions of potential extinction years. These areas, long drained of youthful vitality and increasingly dominated by the elderly, have transformed into enclaves tinged with a palpable sense of despair. Yet, amidst this quiet decline, a transformation is unfolding. Here, the footsteps of the elderly—who in their youth were the stalwarts of Korea's economic triumph—and foreign migrants, compelled by dire economic necessities and engaged in demanding labor, are scripting a new narrative. In this backdrop of subtle transformation and overlooked diversity, I have found the inspiration to propose a new vision—one that leverages their resilience, hope, and shared struggles to chart a forward path, unexplored but brimming with potential.

This paper introduces an innovative vision for regions often dismissed as relics of a bygone era, suggesting we reimagine them not as symbols of decay but as fertile grounds ripe for the creativity required by Korea's demographic transformations. While previous macro-level strategies have provided temporary relief, they have fallen short of seeding the deep, transformative approaches necessary to navigate these shifts. Often overlooked is the profound transformation potential inherent in the community—the '1.0s,' not the '0.something.' These resilient locals, intrepid migrants, and all community members who contribute uniquely embody a reservoir of untapped potential.

By harnessing this inherent diversity, my strategy does not merely aim to halt decline or adapt to it; instead, it seeks to capitalize on the potential for growth and renewal present in every individual. The goal is to develop a nuanced understanding of the dynamic interplay between aging populations and the integration of migrant workers in Korea's shrinking regions and to craft integrative planning frameworks that address immediate socio-economic needs while fostering long-term social cohesion and community resilience. This approach envisions using the collective knowledge, aspirations, and efforts as cornerstones of inventive, sustainable solutions.

This vision challenges prevailing pessimism and calls for a proactive, creative approach to community building, where each individual is recognized as a vital contributor to Korea's evolving identity and a pivotal element in the future backbone of a new era, thereby shaping the future amid decline.

2. Demographic Impasse and the Unseen Prologue

2.1 Tracing the Roots of Demographic Shifts

South Korea finds itself at a critical demographic crossroads, with pivotal changes reshaping its societal, economic, and cultural landscapes. This nation, historically characterized by homogeneity, now confronts a dramatic transformation marked by an aging population, a declining birth rate, and an increase in cultural diversity. By 2042, projections indicate a significant demographic shift: the elderly (aged 65 and older) are expected to constitute 36.9% of the population, while those of foreign descent—including naturalized citizens and second-generation immigrants—are projected to rise to 8.1% (Statistics Korea, 2024b)¹. Figure 1 illustrates the population structure from 2006 to 2072, showing these trends.

In 1983, South Korea had a Total Fertility Rate (TFR) of 2.06, which was adequate to maintain its population with 769,155 births. However, the fertility rate has since plummeted and has remained below 1.3 since 2002, signifying deep-rooted demographic challenges (Statistics Korea, 2023). The decline has become increasingly severe; by 2023, the TFR had dropped to a mere 0.72, resulting in only 229,971 births despite the government spending 379.8 trillion won in efforts to reverse this trend (National Assembly Budget Office, 2023; Statistics Korea, 2024a). Predictions for 2024 anticipate a further decline to about 0.65, leading to a projected decrease in population from 51.67 million in 2022 to an estimated 49.63 million by 2042. With each generation being smaller than the last, the cycle of population decline accelerates, complicating recovery efforts without substantial intervention. Figure 2 graphically represents these shifts in the number of births and TFR over time.

The workforce, specifically the productive-age population (15-64 years), is expected to see a marked reduction: from 36.74 million individuals in 2022 to about 16.58 million by 2072 (Statistics Korea, 2024b). This demographic shift carries significant economic consequences. A 1% decrease in the productive-age population could result in an approximate 0.59% drop in GDP, while a 1% increase in the dependent population might cause a 0.17% GDP decline. By 2050, the productive-age population is projected to have decreased by about 34.75% from 2022 levels, with the dependent population

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¹ For the Population Prediction Method by the Statistics Office of Korea, see the Appendix 1.

expected to rise by 44.67%, potentially reducing the GDP by about 28.38% compared to 2022 levels (Korea Economic Research Institute, 2023). Figure 3 illustrates the changes in the total dependency ratio over time, highlighting the economic implications.

This demographic evolution underscores the rapid increase in the elderly population, from 19.2% in 2022 to an anticipated 36.9% by 2042, and further to 47.7% by 2072. As a result, the median age is projected to rise from 44.9 in 2022 to 55.4 by 2042, and 63.4 by 2072, significantly raising the dependency ratio from 40.6 in 2022 to an unprecedented 118.5 by 2072 (Statistics Korea, 2024b). This structural transformation from a "jar shape" to an "inverted triangle" reflects an aging trend, with a dramatic shift toward a predominance of the elderly. Such a trajectory is likely to have extensive social and economic impacts, including increased vulnerability to chronic diseases and disabilities, strains on healthcare systems and labor productivity, and exacerbated economic inequalities. The sustainability of crucial welfare programs, such as the National Pension, is under threat due to these demographic changes, necessitating targeted policy measures to address income inequality among the elderly (Bank of Korea, 2023a).

Moreover, the proportion of foreign residents has risen from 1.1% in 2006 to 4.89% in 2023, initially driven by policies encouraging international marriages to mitigate the sharp decline in rural populations and the scarcity of women that began in the 1990s. These policies have fostered greater diversity within the population, with the proportion of residents of foreign descent projected to double from 4.3% in 2022 to 8.1% by 2042. The production-age population with foreign backgrounds is expected to increase from 4.8% in 2022 to 11.1% by 2042, and the youth population (0-14 years) of foreign descent from 5.7% to 11.8% (Statistics Korea, 2024c). However, despite these increases, a 2021 National Multicultural Acceptance Survey indicates troubling trends: while increased interactions with the multicultural population tend to improve acceptance, notable segments of the adult population (12.4%) and youths (18.9%) reported having 'never seen' a foreigner or immigrant in their daily environments, such as on the streets. There has been a noted decline in multicultural acceptance among adults compared to 2018, though improvements were observed among youths, suggesting a widening gap between these demographic groups (Ministry of Gender Equality and Family, 2022). Figure 4 details the evolution of population structure, emphasizing the growing segment of residents of foreign descent.

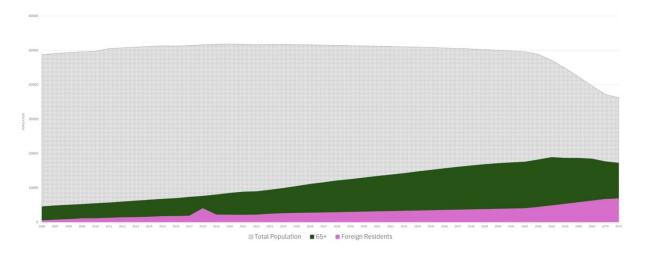


Figure 1 – Population Structure of Korea, 2006-2072

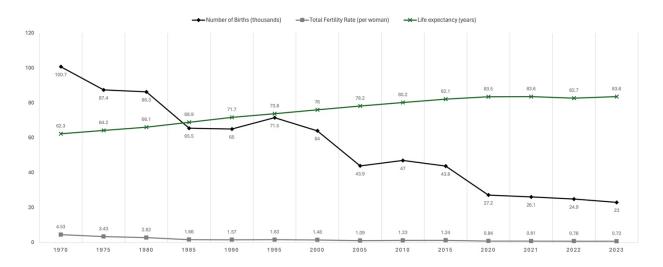


Figure 2 – Number of Births and Total Fertility Rate in Korea, 1970-2023

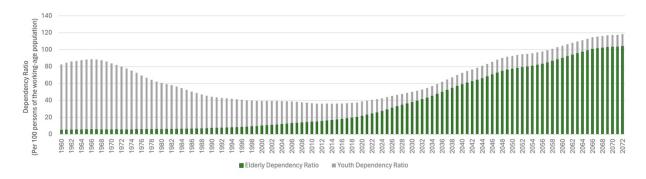


Figure 3 – Total Dependency Ratio of Korea, 1960-2071

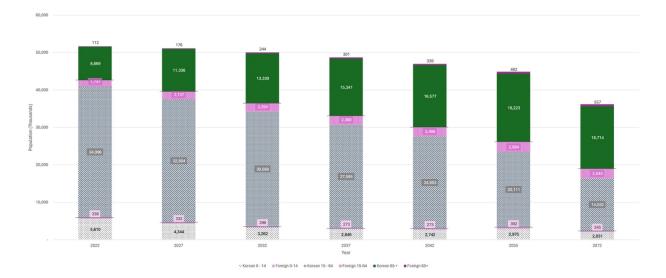


Figure 4 – Projected Population Structure by Age Group in Korea, 2022-2072

2.2 Draining the Periphery: The Centralization Crisis

Korea's demographic landscape is undergoing a profound transformation, characterized by an intense concentration of population and resources within the Seoul Metropolitan Area (SMA). This 'Seoul Republic' effect, while bolstering the SMA's global stature, amplifies existing issues like plummeting birth rates and regional disparities, signaling a deeper socio-economic crisis. The allure of metropolitan Seoul draws youth from smaller towns and cities, leaving behind aging populations and dwindling economic prospects in a cycle that threatens the vitality of these communities.

The gravity of this crisis is quantitatively underscored by several alarming indices. Developed by sociologist Hiroya Masuda, the 'Risk Index of Regional Extinction' calculates the ratio of the female population aged 20 to 39 to those aged 65 or older, highlighting regions at risk of disappearing. In 2014, it was revealed that 79 out of 228 regions were at risk (Korea Employment Information Service, 2016). Subsequently, the 'K-Regional Extinction Index' by the Korea Institute for Industrial Economics & Trade (KIET) in 2022 identified 59 areas at risk (Heo et al., 2022). Furthermore, the Ministry of the Interior and Safety designated 89 areas as 'Population-declining Regions' in 2021 under the Special Act on Local Autonomy and Balanced National

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² The K-Regional Extinction Index utilizes 6 indicators: per capita R&D expenditure, industrial diversity index, knowledge industry ratio, number of employees per thousand people, per capita GRDP, and population growth rate, comparing them with the national average set as '1'.

³ In this study, 'shrinking regions' are defined according to designations by the Ministry of the Interior and Safety.

Development (Ministry of the Interior and Safety, n.d.), as shown in Figure 5. These indices, critical in alerting and leading to increased government funding, have yet to catalyze significant decentralization.

Demographically, the SMA's share of the national population has increased from 49.8% in 2018 to over 50.75% by 2024, contained within just 11.8% of the country's land area, as illustrated in Figure 6. In stark contrast, Busan, South Korea's second-largest city, now hosts merely 35% of Seoul's population (Statistics Korea, 2024).

Economically, this imbalance is pronounced with 86% of the headquarters of the top 100 companies and 75% of the top 1000 companies based in the SMA. The Gross Regional Domestic Product (GRDP) disparity between the SMA and other regions widened dramatically from 1.2 percentage points in 2010 to 5.6 percentage points in 2021 (Bank of Korea, 2023b) as detailed in Figure 7 (Shin, H., 2022; Shin, H., 2020). Labor market conditions further mirror this disparity: from 2015 to 2021, the monthly average real wage disparity between the SMA and other regions widened from 340,000 won to 530,000 won, and the employment rate gap increased from 3.8 percentage points to 6.7 percentage points (Bank of Korea, 2023b). This disparity is exacerbated in smaller enterprises, where 92.7% of all unfilled positions occurred in businesses with fewer than 300 employees, indicating a severe shortage of personnel (Ministry of Employment and Labor, 2022). The uneven distribution of industries further exacerbates regional disparities, with knowledge-based industries concentrated in the SMA (22.5% of employees in core digital transformation technologies are in the SMA, compared to 14.1% in the rest, 2020 figures) in contrast to traditional manufacturing industries such as steel, chemicals, and cement, which are more prevalent in non-capital regions (manufacturing greenhouse gas emissions: Seoul 0.5, Jeollanam-do 24.6, 2021 figures) (Presidential Committee for Decentralization and Balanced Development, 2023).

Educationally, the disparity is significant: between 2015 and 2021, while only 22 schools closed in the SMA, 171 closed in other regions. The competition ratio for university applications rose from 2.7:1 in non-SMA regions to 3.4:1 by 2022, compared to 6:1 in the SMA (Jongro Academy, 2022).

The concentration of the foreign resident population in the SMA also complicates regional dynamics. As of May 2023, 60.7% of the foreign resident population resided

in the SMA, which is even higher than the proportion of Koreans in the SMA (50.75%) (Statistics Korea, 2024). The 'Rural Bachelor Marriage Project,' which introduced marriage migration in 1997, has been criticized for promoting mercenary marriages and gender-discriminatory policies, leading to social stigma against multicultural families and certain groups of people.

From 2015 to 2021, a staggering 78.5% of the population growth in Seoul's metropolitan areas was attributed to the youth demographic (ages 15-32) (Bank of Korea, 2023). This demographic shift establishes a self-perpetuating cycle of regional decline, where the perceived and tangible benefits of residing in the SMA attract a continuous influx of individuals and resources. This exodus not only deprives smaller regions of their potential human capital but also deepens the socio-economic divides between the SMA and the rest of the country, exacerbating a national crisis (Figure 8).

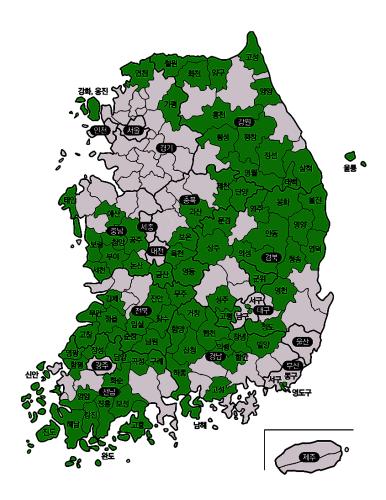


Figure 5 – The 89 Population Decline Areas

Figure 6 – Population and Ratio of Seoul Metropolitan Area vs. the Rest

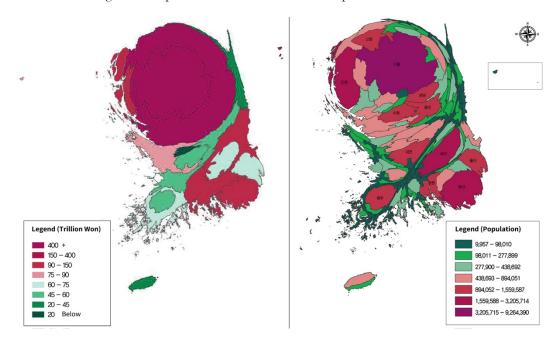


Figure 7 – Gross Regional Income (2020), Population Forecast (2035)

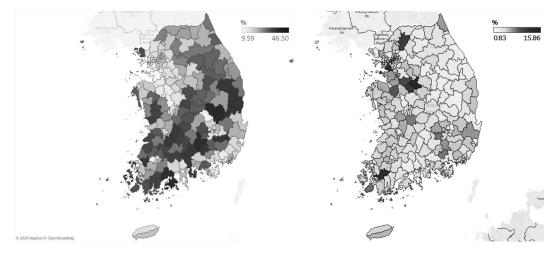


Figure 8 – Aged 65+ and Foreign Residents as Percentage per Region

2.3 Local Responses: Immigration for Demographic Stability

In regions beyond the Seoul Metropolitan Area, profound demographic shifts and acute labor shortages have necessitated a rethinking of immigration policies. These areas, faced with rapidly declining working-age populations, have adopted innovative measures to address these challenges, blending the need for immediate labor solutions with long-term demographic stabilization strategies.

The introduction of the 'Foreign Seasonal Worker System' in 2015, formally implemented in 2017, marks a targeted effort to shore up labor in critical sectors such as agriculture and fisheries. By recruiting foreign labor for durations that align with peak seasonal demands—ranging from three to eight months—this system cleverly meets immediate labor needs without causing the permanent demographic shifts often associated with long-term migration. Moreover, this approach not only alleviates immediate shortages but also promotes cultural exchanges and injects a new dynamism into economies traditionally marked by demographic decline (Ministry of Justice, n.d.)

This system also opens the door for seasonal workers who demonstrate reliability and a strong work ethic to secure annual employment opportunities, thereby bolstering both the continuity and predictability of the labor supply. Managed through a collaborative governance structure that includes local governments and a biannual coordination council involving various national ministries, this system ensures that labor distribution is closely aligned with regional needs and is integrated within the broader scope of national immigration policies.

Parallel to this, the 'Special Act to Support Population Decline Areas,' which took effect in January 2023, was enacted to revitalize 89 regions identified as 'Population-declining Regions' in 2021. This act introduced the 'Regional Excellent Talent Visa', aimed at attracting highly skilled foreigners and their families to these regions for periods extending beyond five years, thereby contributing to regional economic stabilization and growth. The issuance of these visas, contingent on the endorsements from local mayors or governors, is a strategic measure ensuring that the skills of immigrants are well-matched with the regions' specific developmental needs.

In response to high demand, the Ministry of Justice increased the visa allocation in 2024 to 3,291, up from 1,500 the previous year, and expanded the eligibility to more

industries and regions. This change highlights the continuous challenge these areas face in attracting the necessary expertise to mitigate demographic and economic decline (Ministry of Justice, 2023)

In 2023, the introduction of the 'living population' metric marked a significant enhancement in demographic assessment for the 89 regions identified as 'Populationdeclining Regions'. This metric expands demographic analysis beyond registered residents to include foreigners, students, tourists, and other transient populations, addressing the growing discrepancies between registered and actual living areas due to modern mobility dynamics. These discrepancies have often led to mismatches in public service provision and resource allocation, resulting in inefficient and sometimes inequitable distribution of resources (Ministry of the Interior and Safety, 2023). By adopting a more comprehensive demographic view, local policymakers can tailor services and infrastructure more effectively to the actual needs of these dynamically changing populations, enhancing the efficiency of public expenditures (Ha, H. & Ryu, Y., 2022). This pivotal shift is particularly crucial for shrinking regions, enabling them to develop competitive strategies to attract a diverse population. Thus, the 'living population' metric not only responds adeptly to real-time demographic changes but also promotes long-term sustainable development by enhancing the strategic growth visions of these regions.

This strategic shift indicates a significant departure from traditional bureaucratic approaches, reflecting a deep reevaluation of immigration and demographic policies tailored to the unique challenges of regions grappling with population decline. As these areas, particularly those with an aging Korean population, increasingly open their doors to a growing community of foreign residents, the evolving demographic landscape necessitates innovative and previously unexplored inclusive planning strategies. These strategies are designed not just to manage diversity but to leverage it for regional revitalization, ensuring that these diverse groups are seamlessly integrated into the social and economic fabric of the regions. Such integration promotes not only cultural enrichment but also economic resilience, potentially ushering in a transformative era in regional planning and policy formulation.

3. Rethinking Korea's Demographic Futures through its Shrinking Regions

By 2042, projections indicate that 36.9% of South Korea's population will be elderly, and 8.1% will be of foreign descent, signaling a crucial time for urban and social redevelopment. This demographic shift prompts a reevaluation of traditional approaches to aging and immigration, urging the adoption of integrated strategies that acknowledge the complexities of a changing society. The potential synergy between the culturally rich elderly population and the energetically diverse younger newcomers could catalyze the revitalization of both economic and social structures.

However, integrating such varied populations poses significant challenges. Without strategic and nuanced planning, the merging of these demographic groups could exacerbate societal divisions, intensify cultural and economic disparities, and weaken community cohesion. Thus, adopting a comprehensive approach that appreciates the interdependencies of these demographic segments is crucial for fostering sustainable urban development and a resilient social infrastructure.

Shrinking regions are pivotal in understanding and adapting to these demographic shifts. Contrary to being mere areas of decline, these regions are at the forefront of demographic change, providing critical insights into the complexities involved. Analytical data from Figure 9, projecting demographic trends from 2022 to 2042 and comparing the increases in foreign and elderly populations under different scenarios, informs strategic planning. When the 2022 demographic data from all 228 regions in Korea is mapped onto these projections (Figure 10), it shows that shrinking regions are aligning with anticipated national trends, whereas non-shrinking regions exhibit distinctly different demographic paths.

Detailed analyses in Figure 11 and Table 1 highlight the pronounced demographic shifts from 2015 to 2022. In shrinking regions, the elderly population percentage rose significantly from 28.03% to 34.73%, while the proportion of foreign residents increased from 3.06% to 4.46%, marking a 45.75% growth. In contrast, non-shrinking areas saw only modest increases in their elderly (from 12.73% to 17.24%) and foreign populations (from 3.55% to 4.42%). This differential growth pattern suggests that shrinking regions are experiencing a rapid transformation in demographic structure characterized by a substantial increase in both elderly and foreign populations, though

the growth of the elderly is more pronounced. The standard deviation (STD) values, which measure the variability or dispersion from the mean, indicate more significant fluctuations in the percentage of elderly and foreign populations within shrinking regions compared to non-shrinking ones. For instance, the STD for the elderly percentage in shrinking regions has slightly decreased over time, from 5.883 in 2015 to 5.645 in 2022, suggesting a stabilizing yet diverse age demographic as the region continues to age. Conversely, the STD for foreign percentages indicates increasing variability, from 1.413 in 2015 to 1.876 in 2022, highlighting the growing but uneven spread of foreign population integration.

This trend highlights a broader national shift, positioning shrinking regions as critical microcosms for forecasting Korea's demographic future. Influenced by recent initiatives like the 2023 specialized visa systems designed to increase foreign resident numbers, these areas are increasingly aligning with projected demographic trends across the country. They offer vital insights into the integration challenges and opportunities between older residents and newer foreign migrants. Consequently, shrinking regions are essential for observing demographic dynamics and are indispensable in informing and shaping proactive national policies. Their role is crucial in strategic planning and policy development aimed at navigating Korea's demographic transformations.

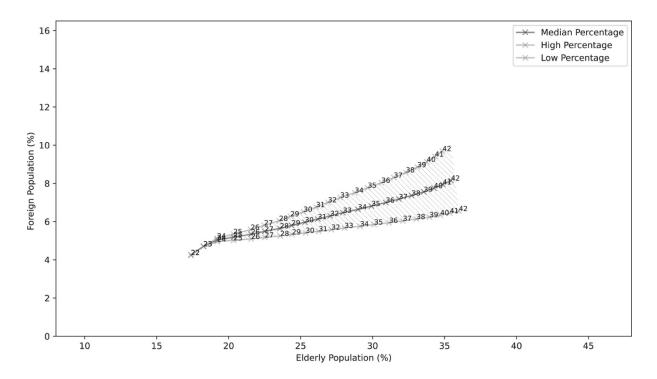


Figure 9 – South Korea's Anticipated Demographic Landscape

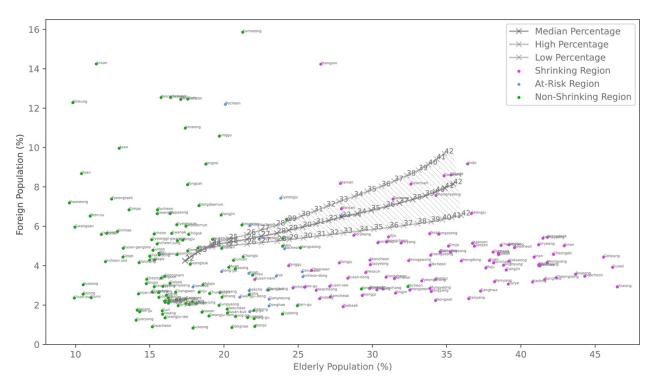


Figure 10 – 2022 Demographics Data Layered on Figure 9

Table 1 – Demographic Data of Non-shrinking vs. Shrinking Regions, 2015-2022

			Non-Shrink	ing Regions			Shrink	ing Regions
Year	Mean Elderly %	Mean Foreigner %	STD Elderly %	STD Foreigner	Mean Elderly %	Mean Foreigner %	STD Elderly %	STD Foreigner
2015	12.72766	3.54788	3.841371	2.604973	28.03101	3.060332	5.883497	1.412908
2016	13.05722	3.610981	3.773049	2.637279	28.58473	3.208215	5.901814	1.440751
2017	13.67742	3.758865	3.738891	2.698352	29.46269	3.441665	5.7903	1.383961
2018	14.17012	4.103956	3.653712	2.919954	30.04906	3.813627	5.642441	1.553662
2019	14.85859	4.388612	3.719252	2.997908	31.01491	4.239422	5.564245	1.784684
2020	15.7459	4.243134	3.813855	2.922768	32.25486	4.06827	5.498591	1.7022
2021	16.43923	4.192859	3.857571	2.885711	33.60061	4.094986	5.693646	1.676415
2022	17.24087	4.422548	3.93077	3.038085	34.73042	4.458772	5.644545	1.875993

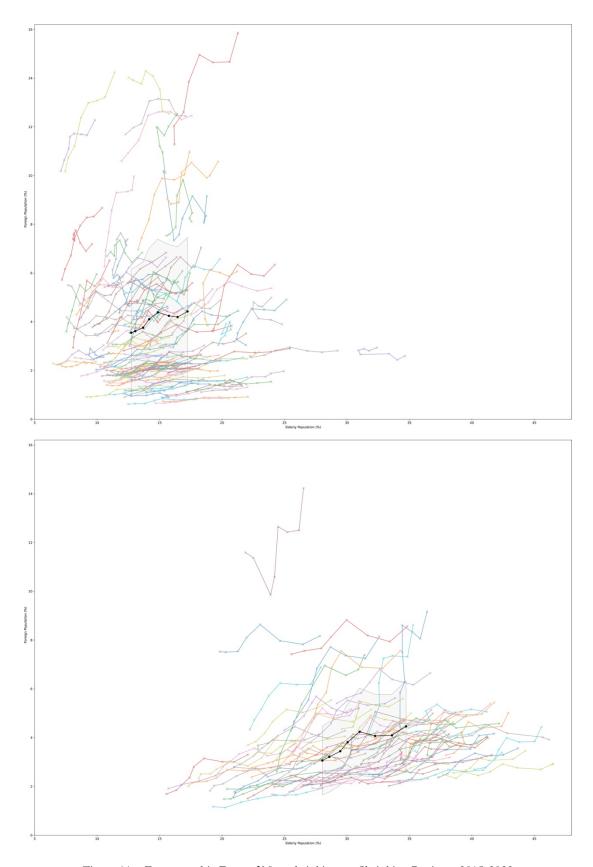


Figure 11 – Demographic Data of Non-shrinking vs. Shrinking Regions, 2015-2022

4. Research Design and Methodology

4.1 Research Question and Objectives

This study explores adaptive and integrative strategies in urban planning and policy to meet the dynamic needs of elderly populations and foreign residents in South Korea's shrinking regions. Set against a backdrop of demographic shifts characterized by accelerated aging, rising foreign residency, and overall population decline, this research aims to design and recommend urban planning models that are both proactive and reactive. These models will integrate predictive analytics to anticipate future demographic trends and challenges, enhancing their practical applicability and sustainability.

4.2 Research Scope

Identifying Future Demographic Regions

This involves focusing on Korean regions that exemplify the interaction between elderly populations and foreign workers—areas that are microcosms of broader demographic trends expected across the country. By analyzing regions based on ongoing demographic changes, policy impacts, and population trends, we aim to understand the dynamics that influence urban decay and growth. This analysis will directly inform the development of responsive urban models.

Analyzing Challenges and Synergies

This objective is to investigate both the unique and shared challenges arising from the coexistence of elderly populations and foreign nationals. By examining how these challenges affect social cohesion and community welfare, the study will provide critical insights that guide the crafting of urban planning models. Structured interviews with diverse stakeholders will offer a broad perspective on intergroup dynamics, dependencies, and conflicts, informing policy creation to mitigate these challenges.

Proposing Sustainable Urban Planning Models

The study will develop sustainable urban planning models that address the unique and shared challenges identified, leveraging insights from structured interviews and analysis to propose policies that enhance urban resilience and integration.

4.3 Methodological Framework and Data Collection

This research employs a comprehensive multi-methodological approach, blending quantitative data sourced from the Korean Government's Statistics Office with qualitative insights gathered through extensive field observations and a series of structured interviews. This integrated approach is designed to provide a robust analysis of the social dynamics and interactions within the targeted regions, offering a holistic view of the demographic changes and their implications.

4.3.1 Literature Review

The foundation of this study is a detailed literature review that encompasses a wide range of sources, including government reports, peer-reviewed academic studies, and expert commentary. This review aims to construct a layered understanding of the current demographic trends, the effectiveness of existing policies, and their impact on aging populations and foreign nationals within Korea.

Research on Elderly in Korea

This segment assesses existing strategies aimed at integrating and supporting the elderly in Korea, focusing on the unique challenges they face and the effectiveness of current policy measures. This section will critically analyze how these strategies align with or deviate from international best practices in elderly care and integration.

Research on Foreign Residents in Korea

An exploration of the socio-economic impacts of immigration on regional development and societal integration in Korea, this part reviews the contributions and challenges posed by foreign residents, scrutinizing the policy environment and its adaptability to the needs of these communities.

Theoretical Approaches to Societal and Spatial Integration

This comprehensive review synthesizes and critiques theoretical frameworks related to social integration, spatial assimilation, and intergroup relations. It critically examines how these theoretical models can be applied to foster community cohesion in Korea's diverse and aging society, particularly in the context of shrinking regions. The analysis highlights the necessity for dynamic policies that promote inclusivity and respect across demographic divides.

4.3.2 Comparative Geographical Analysis and Fieldwork

The study conducts a comparative geographical analysis of regions projected to reflect future demographic trends, combining this with in-depth fieldwork to capture direct interactions and social dynamics. Conducted in March 2024, the fieldwork spans four strategically chosen regions, as shown in Figure 12, involving observations in a variety of settings, from residential areas predominantly occupied by foreigners to communal spaces frequently used by the elderly. A key part of the fieldwork included participation in the Yeongam Moon Festival, an event aimed at fostering cultural integration and creating a foreigner-friendly environment.

Goryeong and Jindo

Chosen for their high percentages of elderly (34.6% and 35.7%, respectively) and foreign residents (8.50% and 8.99%), these cities are analyzed to understand the dynamics prevalent in regions experiencing demographic shrinkage. This analysis provides insights into the effectiveness of current integration efforts and the need for tailored urban planning strategies.

Yeongdeok

With its significant elderly population and the highest presence of foreign residents within shrinking regions (elderly 40.4%, foreigners 5.26%), this city serves as a case study for exploring the specific challenges and opportunities presented by demographic aging alongside foreign integration.

Yeongam

Known for its dynamic mix, with one of the highest elderly populations and a ratio of foreign residents surpassing 5% (elderly 28.5%, foreigners 15.28%), Yeongam offers a unique case to study the interactions and integration strategies between these demographic groups. This provides valuable lessons on fostering social cohesion.

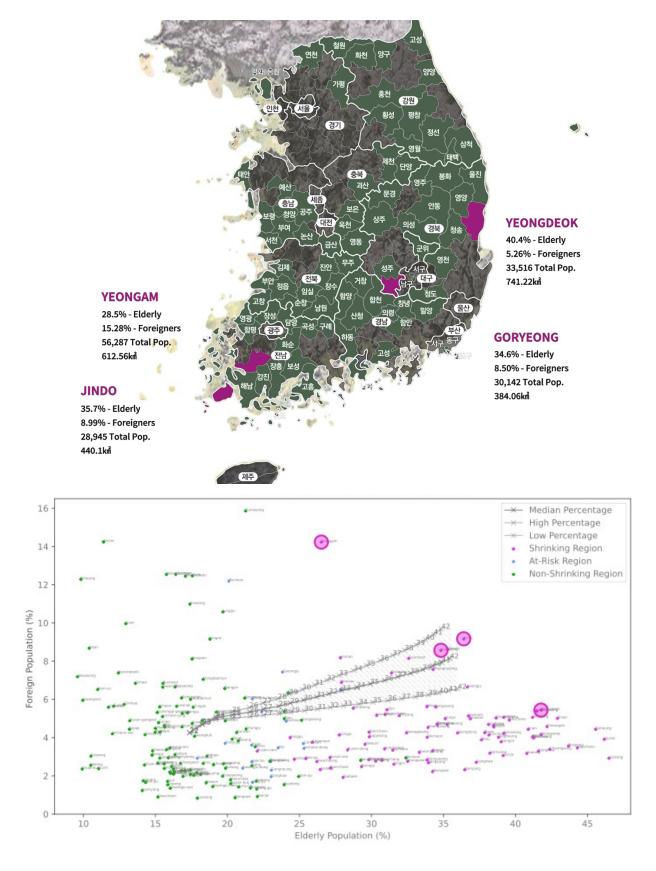


Figure 12 – Geographical Scope of the Research

4.4 Participant Recruitment and Interview Structure

This research employed a comprehensive strategy to capture a broad spectrum of perspectives on demographic shifts, conducting 44 interviews and 37 surveys across four strategically chosen regions. The recruitment process ensured a diverse representation of genders, ages, and socio-economic backgrounds, mirroring the community dynamics of each region. Face-to-face interviews were conducted to enhance engagement and deepen insights into participants' expressions and viewpoints. Responses were transcribed, analyzed for themes, and synthesized to support well-rounded arguments aligned with the study's objectives.

Government Officials | Open-ended Interviews

- Participants: 17 teams from regional offices specializing in demographic change strategies, elderly care, local police work, and foreign resident services.
- Format: Open-ended interviews facilitated comprehensive discussions on demographic trends, policy efficacy, and administrative challenges, examining the impact of current policies within demographic policy units and elderly care departments.

Multicultural Centers | Open-ended Interviews

- Participants: 3 teams from centers in Yeongdeok, Goryeong, and Yeongam.
- Format: Interviews aimed at evaluating services, collecting user feedback, and identifying integration barriers, assessing challenges faced by foreign residents and the effectiveness of provided services.

Employers of Foreign Workers | Open-ended Interviews

- Participants: Five business owners, including three elderly.
- Format: In-depth discussions uncovered complexities of employment relationships and their implications in shrinking regions, exploring socio-economic impacts and employer-employee dynamics.

Elderly Population | Semi-Structured Interviews

- Participants: 11 elderly residents, including local shop owners and community center visitors, with ages distributed across four in their 60s, four in their 70s, and three in their 80s, with an average age of 77.36 years.
- Format: Semi-structured interviews lasting 30-40 minutes each allowed flexibility to

organically explore themes and gather candid insights.

Younger Korean Population | Structured Surveys

- Participants: 37 individuals under 65 years, including 24 males and 15 females. Age distribution included five in their 20s, four in their 30s, six in their 40s, 19 in their 50s, and three in their 60s, with an average age of 48.92 years.
- Format: Surveys adapted from those used with the elderly to compare generational perspectives, conducted both online and in-person to ensure broad engagement and real-time community interaction.

Foreign Residents | Semi-Structured and Open-Ended Interviews

- Participants: 14 foreign nationals from eight countries, primarily marriage immigrants (10) and foreign workers (4), with ages ranging from 28 to 45 years. The average residency duration was 8.68 years, with marriage immigrants averaging 10.65 years and foreign workers 3.75 years.
- Format: Semi-structured interviews provided a platform for detailed personal narratives, enhancing understanding of their integration into Korean society.

4.5 Interview Details and Specific Research Foci

Interview questions were meticulously designed to probe the intricate dimensions of demographic transitions, migration motivations, integration experiences, and the interplay between community structures and cultural dynamics. Each question aimed to elucidate socio-cultural and economic factors impacting community integration and the broader effects of demographic changes on local dynamics.

Foreign Participants' Backgrounds

The study gathered foundational data on the origins, durations of stay, and migration motivations of foreign participants. Comparing their experiences in Korea with those in their home countries allowed the research to assess integration success and pinpoint key challenges.

Demographic Data Collection

Demographic profiles were developed to analyze community dynamics and the drivers of regional migration. Comprehensive data on age, gender, and occupation was collected from all participants, with additional details on household composition and residence duration from Korean residents, providing insights into factors affecting mobility and regional stability.

Perceptions of Community Demographics

Participants' views on the demographic makeup of their communities were evaluated, with a focus on elderly and foreign populations. The study aimed to identify zones of integration or segregation and contrast these perceptions with actual demographic data.

Dynamics of Interactions

This analysis delved into the nature of interactions between foreigners and locals, distinguishing between genuine social integration and superficial engagements. Participants described the frequency and contexts of their interactions, which were analyzed to understand their effects on community perceptions and relationships.

Evaluating Relationships and Integration

The research explored the dynamics within the community, involving assistance, dependency, or indifference among demographic groups. Participants' feedback provided a spectrum of interaction levels, from disengagement to active support, offering insights into the complexities of intercultural relations.

Cultural and Generational Bridges

The project focused on how foreign residents navigate cultural and generational divides, particularly with the elderly Korean population. It highlighted strategies that foster cultural understanding and integration in diverse demographic settings.

Local Sentiments Towards Demographic Changes

The study examined community openness to diversity and the implications of an increasing foreign resident population, revealing local resistance or acceptance.

Policy Perspectives

Feedback on existing and proposed policies concerning community integration was gathered, capturing a range of opinions on their effectiveness. This feedback informed policy recommendations designed to enhance community cohesion and address segregation challenges.

4.6 Methodological Integrity and Ethical Considerations

This study ensures methodological integrity by aligning all data collection methods with the research objectives, providing a robust framework to analyze the complex dynamics between demographic changes and regional policies. Ethical considerations are paramount:

Confidentiality and Anonymity

Rigorous measures are in place to safeguard personal and sensitive information. All data is anonymized and securely stored to prevent unauthorized access, ensuring participants' privacy is protected. The data collection process is designed to minimize intrusiveness and ensure participants are comfortable sharing information.

Informed Consent

Participants provided informed consent, fully aware of the study's scope and the implications of their involvement. The consent process included detailed explanations of the study's purpose, procedures, potential risks, and benefits, allowing participants to make an informed decision about their involvement.

Cultural Sensitivity

The research approach respects the cultural diversities of all demographic groups involved, essential for building trust and ensuring the authenticity of participants' responses. To prevent bias in data interpretation, a transparent and systematic approach was adopted, highlighting recurring themes and common findings across multiple data sources.

Ethical Review Board Approvals

The study passed the Exempt Evaluation by the Committee on the Use of Humans as Experimental Subjects (COUHES). Conducting exempt research involved reviewing and complying with ethical guidelines described in the Investigator Responsibilities for Exempt Research, ensuring adherence to ethical standards and protecting participants' rights and welfare.

This methodological and ethical framework supports the integrity of the research and enhances the validity and reliability of the findings, offering insightful perspectives into the evolving community dynamics within shrinking regions.

4.7 Limitations of the Study

While the study provides significant insights into demographic integration and policy effectiveness within selected Korean regions, it acknowledges several inherent limitations:

Predictive Uncertainty

The dynamic nature of socio-economic and political factors introduces unpredictability into the demographic forecasts utilized, affecting the long-term relevance and accuracy of the findings. Future studies should use a range of scenarios and sensitivity analyses to better account for potential variations in demographic trends.

Demographic Focus

Concentrating primarily on the elderly and foreign populations may overlook other crucial demographic groups such as youth. Including these groups in future studies could provide a more holistic view of urban planning and social integration, developing more inclusive urban planning models.

Geographical Scope

The focus on four specific regions may not fully represent the demographic scenarios across Korea, potentially limiting the generalizability of the findings. Expanding the geographical scope in future research could enhance the applicability of the findings and provide a more comprehensive understanding of demographic integration.

Challenges in Data Collection

Engaging foreign residents posed challenges, notably with undocumented individuals and language barriers. Consequently, the sample may disproportionately represent those more integrated or longer-term residents, potentially skewing the portrayal of broader foreign resident experiences. Future research should employ more inclusive sampling methods and provide multilingual support to ensure a more representative sample.

These limitations underscore the need for cautious interpretation of the results and suggest areas for further research to build on the foundational insights provided by this study. Addressing these limitations would enhance the validity and reliability of the findings and improve the scalability and adaptability of the proposed urban planning models to different regions and demographic scenarios.

4.8 Significance of the Study

This research explores how demographic shifts—specifically aging populations and increasing migrant numbers—affect urban planning in South Korea's shrinking regions. It expands current discussions by linking these groups and the resulting urban dynamics, providing new insights.

Theoretical Contributions

The study enhances theoretical knowledge by incorporating the demographic challenges of elderly residents and migrants into a unified urban planning framework. It challenges traditional urban studies in Korea by emphasizing the interconnectedness of demographic aging and migration. This prompts a reevaluation of urban planning paradigms towards more inclusive and dynamic strategies.

Practical and Policy-Oriented Insights

This thesis delivers practical insights for urban renewal, addressing the complexities of demographic transformations. It offers urban planners and policymakers a strategic blueprint to bolster community resilience, promote social cohesion, and sustain economic vitality, with applications that extend globally to regions experiencing similar demographic changes.

Global Relevance and Timeliness

South Korea's rapid shift towards multiculturalism and pronounced aging provides a unique case to study these global demographic trends. This context offers valuable lessons for managing similar challenges elsewhere, adapting to varying paces and scales.

Strategic Implications for Urban Development

The thesis advocates transformative urban planning that capitalizes on demographic diversity. It suggests an integrated approach that leverages the unique abilities of both aging populations and migrants to enhance urban life. This model acts as a guide for cities worldwide, showing how demographic challenges can be transformed into opportunities for sustainable growth and urban revitalization.

This comprehensive evaluation highlights the urgent need for innovative urban planning approaches, enriching our understanding of urban dynamics and laying a foundation for future global urban development strategies.

5. Literature Review

5.1 Research on Elderly in Korea

Ko et al. (2018) explore the adaptation of WHO's age-friendly framework in the Korean context, focusing on developing localized indicators that enhance social and physical environments for the elderly. The study prioritizes social interaction and physical health, proposing modifications in urban design that facilitate enhanced accessibility and safety. This approach underscores the necessity of tailored planning that supports aging populations by integrating comprehensive environmental adjustments that promote both social connectivity and physical well-being.

Jeong et al. (2023) critically assess the effectiveness of Aging in Place (AIP) policies in addressing the diverse needs of an aging population. Their analysis identifies significant shortcomings in the current approach, particularly in the mismatch between policy offerings and the actual demands of the elderly. By examining the integration of housing and health services, the study calls for a reevaluation of strategies to ensure they encompass a broader spectrum of the elderly population, advocating for a shift towards more holistic and community-focused support systems.

The National Human Rights Commission of Korea (2021): This report provides a critical examination of the aging population's human rights through a multifaceted lens, incorporating theories of marginalization and cumulative disadvantage. This extensive study not only sheds light on increasing medical expenses and employment among the elderly but also underscores significant social inequalities, particularly among elderly women who face profound disparities in pension benefits and social isolation. This research calls for a reevaluation of policies to address the complex layers of exclusion and the need for comprehensive support systems tailored to the aging demographic's diverse needs.

Lim and Kang (2023): Lim and Kang delve into the challenges of securing mobility rights in regions experiencing demographic shifts and economic decline. Their study identifies critical disparities in transportation services, with smaller communities disproportionately affected by reduced accessibility and service limitations. Highlighting operational and regulatory inefficiencies, the research advocates for a coordinated government approach to overhaul public transportation systems, enhancing mobility

for an increasingly elderly population and ensuring equitable access to essential services.

Park, M., Chooi, S., & Lee, Y.-k. (2020): Park et al. address significant workforce challenges in elder care, particularly around the aging of caregivers, high turnover rates, and regional disparities exacerbated by poor transportation in rural areas. They note low societal regard for caregiving jobs, marked by low wages and demanding conditions, which worsen staffing issues. Employing immigrants, although beneficial in alleviating labor shortages due to their typically lower turnover rates, presents hurdles such as certification difficulties due to language barriers, cultural mismatches, and significant adaptation challenges for both workers and service users. To tackle these problems, Park, Chooi, and Lee suggest a tiered policy approach: basic care tasks would require Korean language proficiency and wage controls until certification is achieved; more professional roles could involve training collaborations with local colleges and on-the-job learning, offering equal employment terms post-certification; highly trained immigrants might secure permanent residency after professional training in Korea. This strategy aims to professionalize the sector while addressing ethical and practical concerns about wage equity and workforce integration.

Table 2 – Summary of Literature Review Findings on Elderly in Korea

Author	Year	Arguments or Findings	Policy Implications
Ko et al.	2018	Adaptation of WHO's age-friendly cities framework in Korea, focusing on social interaction and physical health.	Proposes urban design modifications for enhanced accessibility and safety, tailored to local needs.
Jeong et al.	2023	Identifies gaps in Aging in Place policies, suggesting a mismatch between policies and elderly needs.	Advocates for a shift towards holistic, community-focused support systems.
National Human Rights Commissio n of Korea	2021	Examines human rights of the aging population, highlighting social inequalities, especially among elderly women.	Calls for comprehensive support systems that address layers of exclusion and diverse needs of the aging demographic.
Lim and Kang	2023	Highlights disparities in transportation services for the aging in economically declining regions.	Advocates for a coordinated overhaul of public transportation systems to enhance mobility and access for the elderly.
Park, Choi, and Lee	2020	Discusses workforce challenges in aging care services, including issues with employing immigrant caregivers.	Proposes tiered policy solutions for integrating immigrants into the caregiving sector, from basic tasks to professional duties, with emphasis on training and certification, and considers ethical concerns and industry burdens of international wage comparisons.

5.2 Research on Foreign Residents in Korea

Kim and Byeon (2022): This study explores the variable impact of immigration on regional economic development, highlighting how the benefits of foreign nationals' presence are distributed unevenly across different sectors. The analysis criticizes the minimal and sometimes detrimental effects on agriculture, forestry, and fisheries due to undocumented labor and the temporary nature of these jobs. The researchers advocate for region-specific policies that align foreign human resources with local industrial needs to enhance productivity and integration effectively.

Lee, G., Kim, H., Song, Y., and Choi, S. (2018): This research identifies significant disparities in educational attainment among immigrant groups, affecting their economic participation and labor market outcomes. The study notes that marriage immigrants generally have lower education levels, often leading to employment in lower-skilled jobs despite qualifications that match or exceed those of native citizens. It also points to a concerning trend of immigrants, especially those without professional visas, being clustered in manufacturing sectors, which may impede their professional growth. These findings underline the necessity for policies that address educational and vocational mismatches to foster better integration and economic equity.

Kim, Min, and Byeon (2023): Investigating the effects of an increasing foreign population on public social welfare spending, this study finds that higher numbers of foreign nationals correlate with reduced local welfare budgets, influenced by factors like regional characteristics and the legal status of immigrants. The research highlights significant gaps in the social welfare system, where foreign residents often have limited access to benefits, underscoring a pressing need for policy reform to ensure equitable welfare distribution and support the diverse needs of the growing immigrant community.

Jang, J. (2018): This study delves into the entrepreneurial activities of immigrants, revealing that a significant proportion, particularly women in their 30s from China and other Asian countries, engage in self-employment. These entrepreneurs are often better integrated economically due to higher Korean language proficiency and broader social networks. The findings suggest that supporting immigrant entrepreneurship, especially in service and sales, could enhance their socio-economic status and integration, highlighting the importance of targeted support for immigrant-owned businesses.

Jo, H. (2023): Jo's analysis highlights the dynamic regional distribution and growth of foreign residents in regions including Seoul, Incheon, and Gyeonggi. The study points to a pivotal increase in foreign populations following the 2003 legalization of numerous undocumented individuals. Notably, Gyeonggi has surpassed Seoul in the number of foreign residents due to its many companies employing migrant workers, establishing itself as a significant hub that drives regional growth. Despite the stabilization of foreign populations in Seoul since 2010, the capital region still hosts about 60% of the country's foreign residents, indicating a concentrated demographic shift with substantial national implications. Jo's examination extends to other regions experiencing unique demographic changes, influenced by local economic activities and administrative strategies. These insights stress the importance of regional-specific immigration policies that respond to diverse economic conditions and demographic trends.

Yoo, H. (2023): Yoo explores the spatial distribution and employment characteristics of low-skilled migrant workers across different urban areas, segmented by visa types such as Seasonal Workers (E-8), Non-Professional Employment (E-9), and Visiting Employment (H-2). The analysis reveals that Seasonal Workers are mainly employed in agriculture in rural areas experiencing demographic decline, while Non-Professional Employment visa holders are concentrated in industrial regions near Seoul, highlighting a dependency on migrant labor in crucial economic sectors. Visiting Employment visa holders tend to settle in ethnic enclaves within Seoul, suggesting that community networks play a significant role in their residential choices. Yoo's findings underscore the disparate impacts of migrant labor on local economies and call for nuanced policies that foster integration, improve welfare conditions, and consider long-term residency options for migrants contributing significantly to their communities.

Kim, D., Byeon, J., and Hyun, C. (2022): This study examines the evolving demographics and motivations of long-term foreign residents in Korea from 2011 to 2021. It reveals a shift away from non-professional workers towards a more diverse group that includes a significant number of ethnic Koreans and marriage immigrants. The findings indicate that decisions to extend residency are increasingly influenced by factors such as family connections and socio-cultural integration, beyond mere economic opportunities. This shift suggests that traditional economic-centric migration theories are insufficient to fully understand the complex motivations behind long-term residency. Kim, Byeon, and Hyun advocate for comprehensive immigration policies

that address both socio-economic and cultural factors, supporting the diverse needs of the long-term foreign resident population.

Rhee, Yoo, Sin, and Choi (2021): This study advocates for a strategic and aligned approach to immigration, urging policies that both accommodate the needs of local communities and promote the self-growth of immigrants. The researchers emphasize the importance of selecting immigrants who align with the social capacities and values of the host society and encourage their integration into democratic norms. The study underscores the necessity of a balanced policy framework that not only focuses on the functional integration of immigrants but also fosters mutual respect and shared responsibilities between residents and newcomers. This approach aims to enhance both the individual and collective growth, underscoring the potential for immigration policies to contribute positively to the broader societal development.

Kim and Byeon (2021): Kim and Byeon address the controversial linkage between immigration and crime rates, revealing a discrepancy between public perceptions and empirical data. Their findings indicate that while incidents involving foreigners are on the rise, they do not proportionately correspond to the increase in the foreign resident population. This study suggests the need for targeted public safety measures and crime prevention strategies, particularly in areas with significant foreign populations. It also calls for improved employment opportunities, social protections, and integration measures for foreign residents to mitigate societal rifts and enhance communal harmony. The authors advocate for ongoing research and transparent communication to correct misconceptions about foreign residents and to protect vulnerable groups, promoting a comprehensive strategy for inclusive integration.

Cho and Park (2018): Investigating the challenges faced by local officials in managing foreign resident affairs, Cho and Park reveal a significant gap in the necessary expertise and resources. The study highlights the difficulties in implementing effective immigration and multicultural policies due to insufficient training and motivation among local government officials. With most local governments assigning only one or two officials to manage these duties, the lack of specialized training becomes a critical barrier to effective policy execution. The researchers suggest mandatory training and incentives to enhance official competencies, which could lead to more informed and effective policies for integrating and supporting the foreign resident community.

Table 3 – Summary of Literature Review Findings on Foreign Residents in Korea

Scholars	Year	Arguments or Findings	Policy Implications		
Kim and Byeon	2022	Explores the variable impact of immigration on regional economic development, noting uneven benefits across sectors and advocating for region-specific policies.	Advocacy for policies that enhance productivity and effective integration of foreign workers.		
Lee, G., Kim, H., Song, Y., and Choi, S.	2018	Identifies disparities in educational attainment among immigrants, affecting economic participation and calling for policies to address these mismatches.	Necessity for educational and vocational policies to foster better integration.		
Kim, Min, and Byeon	2023	Investigates effects of increasing foreign population on public social welfare spending, revealing reduced welfare budgets and highlighting systemic gaps.	Call for policy reform to ensure equitable welfare distribution and support diverse needs.		
Jang, J.	2018	Delves into immigrant entrepreneurship, revealing significant self-employment among immigrants, especially women, and the benefits of economic integration.	Support for policies that enhance socio-economic status and integration of immigrant entrepreneurs.		
Jo, H.	2023	Highlights the growth of foreign residents in key regions post-2003 legalization, emphasizing the need for regional-specific immigration policies.	Stress on developing policies responsive to economic conditions and demographic trends.		
Yoo, H.	2023	Explores the distribution and roles of low-skilled migrant workers, emphasizing the need for policies that improve integration and welfare.	Need for nuanced policies that foster integration and consider long-term residency options.		
Kim, D., Byeon, J., and Hyun, C.	2022	Examines changing demographics and motivations of long-term foreign residents, advocating for policies that address socio-economic and cultural factors.	Advocacy for comprehensive immigration policies that support diverse long-term resident needs.		
Rhee, Yoo, Sin, and Choi	2021	Argues for immigration policies that accommodate community needs and promote immigrants' growth, emphasizing the integration of democratic norms.	Emphasis on crafting inclusive policies that foster mutual respect and shared responsibilities.		
Kim and Byeon	2021	Addresses the link between immigration and crime, suggesting public safety measures and improved integration strategies.	Recommendation for targeted public safety measures and crime prevention strategies.		
Cho and Park	2018	Reveals challenges faced by local officials in implementing immigration policies due to lack of training and resources.	Suggestion for mandatory training and incentives to enhance policy implementation effectiveness.		

5.3 Theoretical Approaches to Societal and Spatial Integration

In their examination of societal and spatial integration, multiple scholars offer nuanced perspectives on how integration manifests within various dimensions, highlighting the complexity of integrating immigrant and minority populations into broader societal frameworks.

In their analysis of societal integration, Zhou and Xiong (2005) describe a framework that stresses the necessity for individuals to actively participate in all societal aspects while preserving their cultural identities. Their findings reveal that assimilation outcomes are not uniform but vary considerably due to a range of factors including individual, family, community, and societal dynamics unique to each context of migration. They observe that although many children of Asian immigrants adopt assimilation ideologies, aiming for parity with dominant societal groups, they are simultaneously aware of their often-marginalized racial status, which can lead to the internalization of perceived disadvantages. This complex reality necessitates adaptive measures both from immigrants, who must adjust to new lifestyles, and from host societies, which require modifications in institutional practices to better support newcomers. Zhou and Xiong advocate for the development of policies that bolster social capital among refugees, guarantee fair access to rights and services, and promote community programs that strengthen both intra-community bonds and intercommunity bridges, enhancing mutual understanding and cooperation.

Expanding on these themes, John W. Berry (2006) outlines a comprehensive framework on acculturation, which illustrates how ongoing interactions between individuals from different cultural backgrounds lead to the evolution of plural societies characterized by cultural, linguistic, and religious diversity. Berry articulates four adaptation strategies—assimilation, integration, separation, and marginalization—that influence the extent to which individuals retain their cultural heritage or conform to the dominant culture:

- **Assimilation** involves individuals fully adopting the dominant culture at the cost of their original cultural identity.
- **Separation** entails a rejection of the dominant culture in favor of preserving one's native cultural identity, often within ethnic enclaves.
- **Integration** represents a balanced approach where individuals amalgamate elements from both their original and the host cultures, fostering biculturalism.

• Marginalization occurs when individuals detach from both their native and the host cultures, often resulting in social exclusion.

Berry emphasizes that ensuring equitable access to resources and preventing any community's marginalization are crucial for nurturing a healthy, pluralistic society. His insights complement those of Zhou and Xiong by underscoring the importance of accommodating diverse cultural identities within a shared societal framework, advocating for a model of cultural pluralism as opposed to a "melting pot" approach. Together, these studies provide a nuanced understanding of how integration and acculturation processes can be structured to promote inclusivity and equal opportunities within increasingly diverse societies.

Strang and Ager (2010) define integration as the capacity "to participate to the extent that a person needs and wishes in all of the major components of society, without having to relinquish his or her own cultural identity," highlighting the essential balance between active societal participation and the preservation of personal cultural identity. They emphasize that integration is a "two-way process" that requires adaptability from refugees to new lifestyles and a willingness from host societies to adjust institutional practices to accommodate new members. To facilitate this process, they identify three types of social capital—'bonds,' 'bridges,' and 'links'—as crucial. 'Bonds' provide emotional support and help maintain cultural continuity within a community, 'bridges' foster connections beyond one's immediate community to enhance understanding and cooperation across diverse groups, and 'links' connect individuals to broader societal institutions like schools and government services, enabling access to rights and essential services. Strang and Ager advocate for policies that enhance refugees' social connections, ensure equitable access to rights, and develop community programs that build both intra-community bonds and inter-community bridges. They argue that effective integration strategies must recognize the complexity of integration across various domains, provide necessary resources such as language training and employment opportunities, and encourage community engagement to promote mutual understanding and cooperation.

In a similar vein, Allen and Turner (1990) explore the spatial patterns of immigrant assimilation in the greater Los Angeles area, focusing on cultural and economic assimilation within zones of varying proximity to ethnic concentrations. They define

spatial assimilation as a process where "immigrants who share a culture initially settle together for mutual support, but they and their children leave that concentration and find homes among English-speaking US residents as they become more familiar with the country's culture, find better jobs, and earn more money." Their study reveals that while the expected direction of zonal differentiation is confirmed, the differentiation is statistically significant but not strong for most groups, indicating that more recently arrived immigrant groups and those with higher incomes exhibit greater differences in assimilation between zones. This nuanced understanding of spatial assimilation suggests that the model of residential segregation by Massey, which directly connects cultural, economic, and spatial assimilation, may need modification to reflect contemporary urban reality. Allen and Turner's insights challenge traditional models by suggesting that modern immigrants may form ethnic concentrations in diverse locales, settle less frequently in traditional ethnic enclaves, or exhibit weaker connections between spatial assimilation and cultural and economic integration. They advocate for a more refined approach in defining areas of spatial assimilation and suggest focusing on micro-level differences within immigrant communities. Specifically, they propose defining areas of spatial assimilation with a closer spatial relationship to actual areas of ethnic concentration, thereby allowing researchers and policymakers to better understand the micro-level variations in assimilation processes and develop more tailored and effective integration strategies. By recognizing the varied paths of assimilation and the role of changing metropolitan dynamics, their research points towards the need for urban policy adjustments.

Balakrishnan and Hou (1999) and Vigar (2009) offer complementary perspectives on integration, focusing on socio-economic and spatial dimensions, respectively. Balakrishnan and Hou challenge the conventional assumption that residential segregation is a reliable indicator of socio-economic integration, illustrating through Canadian data from 1981 to 1991 that while residential segregation remained stable, occupational segregation among ethnic groups declined significantly. This suggests that ethnic groups' spatial concentration does not necessarily impede their socio-economic integration within broader society. They advocate for a nuanced understanding of integration that accounts for the complexity of immigrant experiences and the multi-dimensionality of integration, recommending that policy efforts shift from focusing solely on residential patterns to addressing discrimination in employment and other areas of socio-economic life to ensure equitable opportunities for all.

Conversely, Vigar elaborates on the concept of "integrated spatial planning," which emphasizes harmonizing policy coordination across sectoral, organizational, and territorial boundaries. He describes integration as involving the alignment of strategies and policies, reframing policy, connecting policy to action, and fostering cooperation among actors to achieve comprehensive spatial planning. This approach extends beyond traditional land-use planning to encompass broader considerations. Vigar identifies two primary forms of integration: vertical integration, which aligns governance across different levels like national and local plans, and horizontal integration, which coordinates actions across various sectors or departments. He notes that these integrative efforts, which he terms "governance lines," facilitate policy flow across different spatial scales and require adaptations to local conditions and path-dependent factors.

Wessel, Andersson, Kauppienen and Andersen (2017) challenge the conventional wisdom that reduced segregation correlates with faster spatial integration in Nordic cities. They present a counterintuitive finding that redistributive welfare policies might slow spatial integration by creating a "double compression of differences," where immigrants are stabilized in urban contexts without significant upward mobility. These policies, while aiming to mitigate inequalities, may inadvertently sustain socio-economic and spatial disparities. The study suggests that immigrants dependent on welfare might remain in lower-income areas, which seem adequate due to the decent standards of living upheld by state subsidies and regulations. The egalitarian nature of these societies might also obscure deeper issues like labor market discrimination and selective migration, complicating the patterns of spatial integration. The authors express concern that, over the long term, extensive native flight, native avoidance, and sustained minority clustering might threaten the affective attachment between people, underlying a critical need for reevaluating the impacts of welfare policies on urban integration processes.

In contrast, Zhou and Xiong (2005) define integration as the ability "to participate to the extent that a person needs and wishes in all of the major components of society, without having to relinquish his or her own cultural identity." Their research into the experiences of children of Asian immigrants reveals a nuanced reality where assimilation outcomes vary significantly, influenced by individual, family, community, and societal

factors specific to each context of exit and entry. They note that while many children of Asian immigrants embrace assimilation ideologies and strive for equality with dominant societal groups, they also remain cognizant of their often-inferior racial status, sometimes internalizing associated disadvantages. This dual process requires adaptations from both immigrants, who must adjust to new lifestyles, and host societies, which need to amend institutional practices to better support newcomers. Zhou and Xiong advocate for policies that enhance social capital among refugees, ensure equitable access to rights and services, and develop community programs to foster both intracommunity bonds and inter-community bridges, thus promoting mutual understanding and cooperation.

Waldinger and Feliciano (2004) delve into the hypothesis of "segmented assimilation," questioning the inevitability of a downward mobility into what they term a "new rainbow underclass," especially among Mexican Americans. Through their analysis of the 1996–2001 Current Population Surveys, they challenge the concept of an "underclass" and propose that exposure to native minorities may benefit rather than hinder the progress of the second generation. They argue against a unilateral downward trajectory, suggesting that children of low-skilled immigrants have potential pathways toward upward mobility, facilitated by educational opportunities and institutional supports. They call for policymakers to recognize the varied assimilation paths and to design policies that leverage community strengths and address systemic barriers, fostering environments conducive to the thriving of new generations beyond the lower societal strata.

Conversely, Massey and Denton (1985) explore "Spatial Assimilation as a Socioeconomic Outcome," emphasizing how socioeconomic advancements lead to residential integration within mainstream society. Utilizing individual-level data from the 1970 Census, they reconfirm the theory of spatial assimilation, particularly highlighting how residential locations significantly influence life opportunities in terms of health, quality of education, access to employment, and social prestige. However, they reveal that despite higher socioeconomic statuses, blacks and Puerto Ricans face greater challenges in achieving spatial assimilation compared to Hispanics. The authors point out the necessity for urban planners and policymakers to consider the complex interplay between socioeconomic status, race, and residential patterns in crafting inclusive urban policies. They stress that integration efforts must tackle both

socioeconomic and racial inequalities to ensure that advancements in socioeconomic status effectively translate into improved spatial assimilation.

Table 4 – Summary of Approaches to Societal and Spatial Integration

Scholars Year		Arguments	Spatial Implementations		
Zhou and Xiong	2005	Integration requires participation in societal aspects without sacrificing cultural identity. Variability in assimilation outcomes.	Develop community programs that foster both intra-community bonds and inter-community bridges, promoting integrated neighborhoods.		
John W. Berry	2006	Acculturation through interaction leads to plural societies. Four adaptation strategies determine cultural retention or conformity.	Design urban spaces that support cultural pluralism and interaction among diverse groups to enhance assimilation, integration.		
Strang and Ager	2010	Integration as a "two-way process" requiring adjustments from both refugees and host societies. Emphasizes the importance of social capital.	Implement urban planning that includes social support facilities like community centers and accessible public services to strengthen 'bonds', 'bridges', and 'links'.		
Allen and Turner	1990	Spatial assimilation involves cultural and economic factors and varies by zones. Challenges traditional models of residential segregation.	Zone urban areas to encourage diversity and economic integration, and redefine ethnic concentration areas to reflect actual living patterns.		
Balakrishnan and Hou	1999	Residential segregation doesn't necessarily impede socio-economic integration despite stable levels.	Adjust zoning and urban policies to foster socio-economic integration within residentially segregated areas, focusing on occupational opportunities.		
Vigar	2009	Integrated spatial planning involves harmonizing policy across boundaries for comprehensive planning.	Implement integrated spatial planning strategies that align national and local plans, coordinate sectoral actions, and adapt policies to local cultural practices.		
Wessel et al.	2017	Redistributive welfare policies might slow spatial integration by stabilizing immigrants in lower-income areas without upward mobility.	Reevaluate welfare policies to ensure they promote upward mobility and prevent long-term minority clustering and socio-economic disparities.		
Waldinger and Feliciano	2004	Segmented assimilation suggests varied pathways of upward mobility, countering assumptions of inevitable downward mobility.	Design policies that address and leverage community strengths, supporting educational and occupational advancements among immigrant youth.		
Massey and Denton	1985	Socioeconomic advancements lead to spatial assimilation, though minorities face challenges due to socioeconomic and racial disparities.	Craft inclusive urban policies that tackle both socioeconomic and racial inequalities to ensure advancements in socioeconomic status translate into spatial assimilation.		

6. Industry, Law, and Spatial Dynamics

6.1 The Dynamics of 3D Jobs and Subcontracting Structures

In Korea's shrinking areas, the widespread presence of "3D" jobs—dirty, dangerous, and demeaning or demanding—serves as a potent indicator of the deep structural challenges within the labor market. These roles are predominantly found in high-risk sectors such as manufacturing, construction, heavy industry, services, and agriculture. The nature of these jobs—physically demanding, monotonous, and involving intense work paces—is symptomatic of broader systemic failures, beyond just inadequate compensation. The label "3D" not only underscores the unattractiveness of these roles but also exposes the intricate subcontracting networks that sustain them (Figure 13, (Lee, 2015)). In these economically marginalized regions, the economic structure often mirrors a subcontracting system, where larger, economically stable areas exploit smaller, declining ones (Figure 14). This configuration places them at the lower echelon of a broader economic hierarchy, exacerbating their vulnerabilities and highlighting a deliberate structuring that perpetuates the exploitative practices of larger economic entities.

Table 5 – Employment Count across Shrinking and Non-Shrinking Regions⁴

	Industry	Shrinking Regions	Non-Shrinking Regions
Primary Industry	Agriculture, Forestry, and Fisheries	19,214.90	1,378.29
Secondary	Manufacturing, Minding	7,385.60	8,869.47
Industry	Construction	4,114.54	3,965.12
Transfer To Large	Retail, Accommodation, Food services	9,525.16	10,227.39
Tertiary Industry	Electricity, Transport., Communications, Finance	4,320.27	6,819.01
	Self-employment, Public services, and Other	21,313.32	20,538.51
Total Population		4,860,810	4,418,529

Data Source: Statistics Korea.

⁴ The data presented in Table 5 was calculated by dividing the employment count of people in these sectors (as reported by individuals working in each specific industry) by the total population of each respective region. This ratio provides a comparative measure of industry-specific employment density across different regions.

The economic monoculture in shrinking regions not only manifests but also perpetuates their lower status within the national economic hierarchy. In the agricultural, forestry, and fisheries sectors, for instance, as shown in Table 5 and Figure 15, employment is disproportionately high in shrinking regions, with 19,214.9 individuals employed compared to only 1,378.29 in more prosperous regions (Statistics Korea, 2023d). The significant initial investments required in these sectors, likened to the cost of "buying a house in Seoul," create insurmountable barriers to entry and lead to socio-economic stratification (Ministry of Oceans and Fisheries, 2023). Government efforts such as the Youth Farmer Land Support Project (2030 Land Bank) and the Youth Fishing Boat Rental Project have not fully addressed these challenges, as the market is dominated by private transactions, and the assets available are often of poor quality, which hampers the entry of new participants. Consequently, this economic structure fosters a dependency cycle, propelling youth migration to more economically vibrant areas and perpetuating the cycle of economic stagnation in these regions.

The impact of geographic proximity on employment trends is particularly pronounced in economically homogeneous areas like Yeongdeok, which relies heavily on a service sector dominated by crab restaurants, accounting for 64.1% of its economic activities. This singular focus limits diversity and stifles innovation in both the primary sector (15%) and manufacturing (20.8%), largely dependent on local agricultural and fisheries outputs (Jeong, S., 2023). The proximity of Yeongdeok to Pohang, a major urban center, exacerbates this trend, as young people are drawn to the broader opportunities and more diverse economic conditions offered by the larger city. The migration of younger, potentially more innovative workers drains Yeongdeok of vital human resources necessary for economic rejuvenation and diversification, further entrenching its lower position in the regional economic hierarchy. This lack of economic diversity and innovation places regions like Yeongdeok in a precarious position, vulnerable to economic shocks and difficult to sustain their economic health independently.

Similarly, Goryeong's proximity to Daegu, Korea's fourth-largest city, results in economic drainage towards the larger urban center, facilitated by the Daegu-Gwangju expressway. This infrastructure diverts traffic and economic activity from Goryeong, deepening its economic dependency on Daegu. Goryeong contends with a low-value-added economic structure that is heavily reliant on tertiary industries (43.8%), while its primary (36.8%) and secondary industries (19.4%) struggle to add significant economic

value (Goryeong County, 2021). Yeongam, known for its shipbuilding, exhibits a similar pattern. Despite a strong industrial presence, the shippard significantly features a prevalent subcontracting system. Many workers choose to live in the nearby urban center of Mokpo and commute to Yeongam, underscoring significant disparities in living conditions and the attraction of urban environments that offer richer economic and social opportunities.

These patterns across Yeongdeok, Goryeong, and Yeongam illustrate how regional economies, akin to the lower tiers of a subcontracting structure, find themselves trapped in cycles that structurally and economically weaken them. The systematic draining of resources towards larger urban centers reflects a subcontracting hierarchy where smaller, dependent regions continuously feed the growth and diversity of larger cities at their own developmental expense. In this model, shrinking areas function almost like lower-tier suppliers or subcontractors, limited in their capacity for independent growth and constrained by the economic homogeneity that stifles their local industries. This environment breeds widespread acceptance of subpar working conditions and reduces resistance against dominant conglomerates, whose excessive demands cascade through the subcontracting chain, cultivating a culture of compliance and fear that stifles dissent and perpetuates the status quo.

The restrictive and often exploitative conditions frequently lead to an increased incidence of labor violations and industrial accidents. This not only compromises worker safety but also contributes to a broader alienation of these workers from the wider societal fabric. Such conditions perpetuate their marginalization and exacerbate the instability of the labor market, creating a feedback loop that reinforces the transient nature of the workforce in these regions. This situation raises critical questions about the sustainability of traditional industries in shrinking regions: Are these sectors merely remnants of a past economic model, or do they expose deep structural issues that demand comprehensive reform? The continued reliance on outdated industrial models, bolstered by foreign labor and systemic inefficiencies, highlights significant challenges that undermine the efficacy and fairness of Korea's industrial framework, necessitating substantial policy reevaluation and innovative approaches to secure the future sustainability of these industries and ensure equitable treatment for all workers.

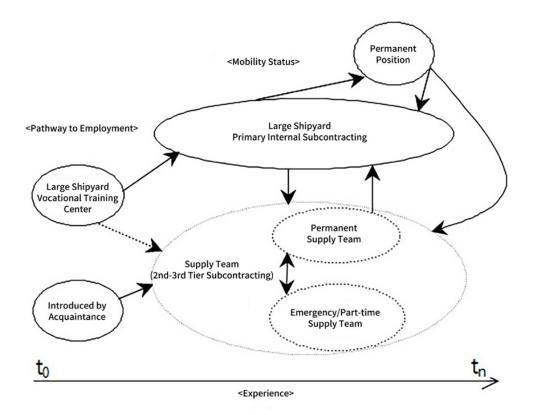


Figure 13 – Subcontracting Relationships in Shipbuilding Industry

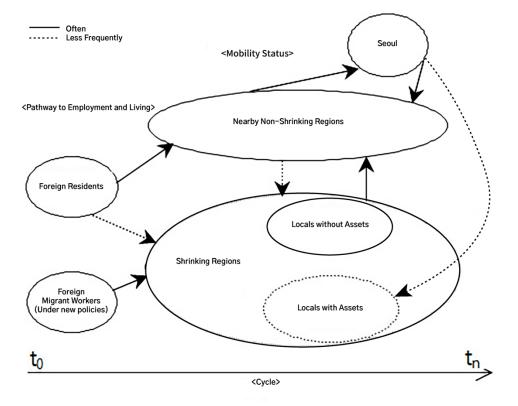


Figure 14 – Subcontracting Structure of Korean Cities – Adapted from Figure 13.

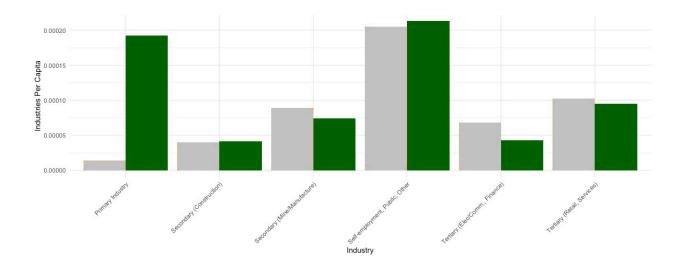


Figure 15 – Employment Count across Shrinking and. Non-Shrinking Regions

6.2 Foreign Workers in Shrinking Regions

The challenges faced by foreign workers in Korea's shrinking regions reveal a complex interplay between economic necessity and systemic limitations. While these areas rely on the influx of foreign labor, especially in sectors dominated by "3D" jobs, the conditions and opportunities available to these workers are often markedly unstable. This instability is particularly evident when analyzing the visa structures and demographic patterns within these communities.

In the top five shrinking regions with the highest percentage of foreign residents, the workforce is predominantly transient, characterized by a significant reliance on E-9 low-skilled labor visas (Table 6 and Figure 16). These visas, which account for 64.48% of those issued to foreigners in these areas, are designed for short-term employment in sectors that offer little in terms of wage growth or job security (Statistics Korea, 2023e). The terms of these visas allow stays of up to three years, with a possible one-time extension to just under five years, but restrict holders to low-wage sectors and prevent them from changing industries or regions (Table 7, (Statistics Korea, 2023f, p.82)). Such constraints limit the economic mobility of these workers and contribute to the perpetuation of a fundamentally unstable foreign workforce, constantly in flux due to the precarious nature of their employment and the economic pressures driving their migration.

Table 6 – Visa Types in Shrinking and Non-Shrinking Regions, 2022

Visa		Permit Duration	Shrinking Regions	Non-Shrinking Regions
E-9	Non-professional Work	Upto 4 years 10 months	185,709	46,988
E-7	Skilled Work	Extendable	23,064	1,612
D-2	Student	2 to 5 years	117,661	6,941
E-8	Seasonal Work	5 months	2,487	2,620
F-6	Marriage Immigration		113,565	14,283

Data Source: Ministry of Justice Immigration and Foreigner Policy Bureau.

Table 7 – Duration of Stay in Korea by Visa Type

Visa Type	%	~ 6m	6m - 1y	1 - 3y	3- 5y	5 - 10y	10 + y
E-9	Non-professional	3.2	17.9	10.1	33.1	35.1	0.7
H-2	Ethnic (Non-prof)	0.7	7	10.9	9.9	29.2	42.2
E-1- E-7	Professional	2.4	9.1	18.8	19.6	28.9	21.8
D-2, D-4-1-7	Student	3.6	23.5	33.4	26.5	11.9	1.1
F-4	Ethnic Korean	0.7	1.9	4	9.9	33.8	49.6
F-5	Permanent Residency	0	0.1	0.2	0.6	14.1	84.9
F-6	Marriage	0.7	2.2	8.2	15.4	28.7	44.8
Others		2.1	13.3	15.3	24	26	19.2

Moreover, the commitment to language learning varies dramatically by visa type, reflecting different integration efforts. E-9 visa holders spend an average of only 8.7 months learning Korean, correlating with their transient residency intentions (Table 8, (Statistics Korea, 2023f, p.81)). In contrast, both H-2 and F-4 visa holders spend significantly longer—approximately 34.7 and 34.8 months respectively—learning Korean, indicative of their stronger commitment to long-term residence and integration into Korean society (Statistics Korea, 2023f).

Table 8 – Time Spent Learning Korean by Visa Type

Visa Type		
E-9	Non-professional	8.7 months
H-2	Ethnic Korean (Non-prof)	34.7 months
E-1- E-7	Professional	13.9 months
D-2, D-4-1-7	Student	14.3 months
F-4	Ethnic Korean	34.8 moths
F-5	Permanent Residency	32.8 months
F-6	Marriage	19.1 months
Others		17.1 months

Longer-term residency options, which could provide greater stability, are notably rare in these regions. Permanent residents constitute only 2.97% of the foreign population, and marriage immigrants, who often have more avenues for integration and community support, account for just 7.45%. Combined, these more stable residency statuses make up a mere 10.31% of the foreign population. Ethnic Koreans, possibly benefiting from cultural and linguistic similarities that enhance their integration prospects and overall stability within the community, comprise only 6.9% of the foreign demographic (Statistics Korea, 2023e).

In contrast, in the top five non-shrinking regions with the highest percentage of foreign residents, permanent residents and marriage immigrants make up 15.86% of the foreign population—significantly higher than in shrinking regions, where they constitute only 10.31%. Additionally, 40.76% of foreigners in non-shrinking areas are ethnic Koreans, compared to just 6.9% in shrinking regions, indicating a more assimilated and stable foreign resident base (Statistics Korea, 2023e).

The financial behaviors of visa holders further underscore the socioeconomic challenges linked to their residency status (Table 9, (Statistics Korea, 2023f, p.76)). In shrinking regions, E-9 visa holders allocate 56.5% of their income to remittances, 20.5% to living expenses, and save only 11.8%. Conversely, ethnic Koreans in non-shrinking regions with an F-4 visa send a smaller portion (7.8%) as remittances, spend 47.4% on living expenses, and save 18.2% on average. Holders of the H-2 visa, which is restricted to non-professional employment like the E-9 but is for ethnic Koreans, also exhibit a more balanced financial distribution, spending 13.9% on remittances, 43.2% on living expenses, and saving 17.6% (Statistics Korea, 2023f). This pattern emphasizes the transient nature of their stay and the economic pressures they face, reflecting their more stable residency status and perhaps a greater commitment to long-term living in Korea.

Visa Type	0/0	Living	Housing	Remittances	Savings	Etc
E-9	Non-professional	20.5	2.6	56.5	11.8	8.5
H-2	Ethnic Korean (Non-prof)	43.2	15.6	13.9	17.6	9.6
E-1- E-7	Professional	35.8	10.9	22.6	20.7	10
D-2, D-4-1-7	Student	55.2	29.9	2	5.8	7
F-4	Ethnic Korean	47.4	15.5	7.8	18.2	11.1
F-5	Permanent Residency	49	12	5.6	21.2	12.1
F-6	Marriage	50.2	11.2	9.3	18.7	10.6
Others		39.5	13	24.1	13.9	9.5

Table 9 – Financial Allocation of Income by Visa Type

The frequent relocation and high turnover in shrinking regions not only disrupt the potential for stable community integration but also entrench a cycle of demographic flux. This constant state of instability hampers efforts to create cohesive multicultural environments and intensifies economic segregation between locals and foreigners. The transience of these populations, often driven by restrictive visa conditions and limited job security, undermines any possibility of developing a solid community foundation that could benefit both local economies and the individuals within them.

This demographic composition and the conditions under which foreign workers are employed underscore a broader trend: skilled and culturally acquainted foreigners are less likely to settle in shrinking regions. The transient nature of most foreign workers' status, coupled with the limited opportunities for professional growth and societal integration, renders these areas unattractive for long-term settlement. This is not merely a reflection of individual choices but a direct outcome of systemic challenges that limit economic and social mobility.

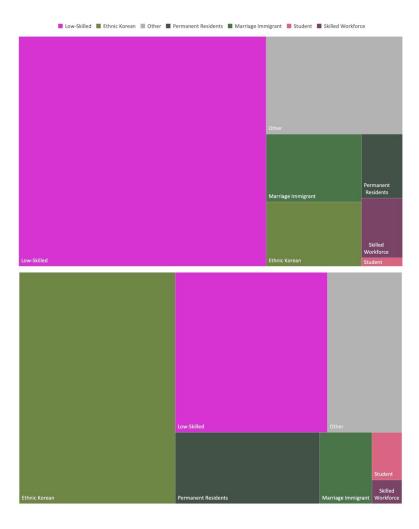


Figure 16 – Shrinking vs. Non-Shrinking by Visa Types

6.3 Spatial Segregation Stemming from Policy in Shrinking Regions

The settlement patterns of foreign workers in shrinking regions reveal a complex, intertwined relationship between work commitments and residential arrangements, primarily driven by the obligation of employers to provide housing for short-term foreign workers. Over 52% of E-9 visa holders reside in boarding houses or live in apartments or houses near their workplaces, reflecting a lifestyle deeply intertwined with their employment obligations (Table 10, (Statistics Korea, 2023f, p.62)). As the number of foreign workers increases, their settlement patterns distinctively evolve (Figure 17).

(1,000)	Non-Apt	Apt	Board	Other	Own	Rent	Free
E-9	58	16	140	55	1	55	214
H-2	74	7	2	4	5	72	10
E-1- E-7	21	9	8	8	1	24	22
D-2, D-4-1-7	133	8	31	15	2	169	17
F-4	276	81	6	23	75	275	36
F-5	80	41	1	8	54	70	7
F-6	63	54	0	3	52	63	5
Others	129	51	8	15	29	119	55

Table 10 – Types of Residence by Visa Type

In Yeongdeok, which has a considerable elderly population (40.4%) and a smaller contingent of foreign residents (5.26%) (Statistics Korea, 2023), there is a substantial demand for a foreign workforce in food processing, farming, and fisheries. Industries often locate their operations in less populated areas or near ports—key zones for primary industrial activities (Figure 18). These distinctive settlement patterns—typically in remote rural areas or on the outskirts of regions—significantly limit the workers' potential for social integration.

The imperatives of industrial operations largely dictate these living arrangements, effectively isolating workers in enclaves that operate nearly independently from the broader community. A significant portion of Yeongdeok's foreign workforce, 56.37%, consists of E-9 short-term laborers, with seasonal workers accounting for another 13.75% (Statistics Korea, 2023e). Communal living situations such as dormitories and employer-provided transportation to work sites further diminish opportunities for meaningful interactions with local residents. This setup embeds the workers within insular communities, creating a stark contrast with the surrounding societal fabric and underscoring the challenges of integrating transient labor forces into local social and economic life.

In contrast, Goryeong, where 8.50% of the population are foreign residents (Statistics Korea, 2023), the living options are more dispersed, enhancing mobility and fostering interaction within the community. The demographic breakdown of Goryeong's foreign population includes 61% short-term laborers, 7% marriage immigrants, 7% ethnic Koreans, 4% permanent residents, and 3% professional workers (Statistics Korea, 2023e). Many foreign residents have found homes in the area of the old, abandoned Gaya University campus (Figure 19). After the university experienced a decline in enrollment and relocated its departments, it left behind about 200 small studio apartments, previously used as student housing. These units are now occupied by foreign laborers and marginalized groups, creating a unique residential community. During the farming season, the area teems with foreign workers, bustling with activity, and then quickly empties out after the season concludes. Predominantly, Vietnamese and Thai nationals make up the majority in this area, creating vibrant enclaves around Thai and Vietnamese grocery stores and restaurants, all situated within a few meters of each other. These enclaves, characterized by the formation of communities around marketplaces, serve as crucial hubs for services and social interaction, reinforcing cultural identities and supporting informal networks among immigrants. Despite the broader options for integration, the economic necessity still ties many workers to these enclaves close to their employment locations, thus maintaining settlement patterns tightly linked to industrial and agricultural zones.

In Yeongam, the burgeoning shipbuilding industry has catalyzed demographic and economic centralization, particularly in Samho-eup, where 40% of the city's population resides due to its proximity to key employment centers (Statistics Korea, 2023). This area's growing diversity in visa types and nationalities reflects its industrial boom. Approximately 15.28% of Yeongam's population are foreigners, with 46.19% working as short-term laborers and 8.37% classified as skilled professionals (Statistics Korea, 2023e). Many of these foreign workers live in the Daebul Industrial Park's designated residential zone, which is densely populated and distinctly segmented between larger apartment complexes housing local Korean families and multi-unit dwellings that are predominantly occupied by foreign workers. The residential area for foreign workers, covering about 300,000 square meters, officially houses 8,000 individuals (Figure 20). However, local authorities and service providers, such as those from the industrial uniform laundry sector, estimate the actual population could range from 17,000 to 19,000, including undocumented immigrants. Despite its status as one of the most

expensive residential areas in Yeongam, the need for proximity to industrial workplaces compels many to endure cramped living conditions, fostering a unique enclave of foreign communities. This enclave has spurred the development of vibrant microeconomies deeply influenced by the transient nature of the population. A notable aspect of this community is the emergence of over 32 "Asian Markets" and other ethnic stores, which have become critical cultural and social hubs (Figure 21). These establishments cater specifically to the needs of a transient population, providing essential services and a sense of community for residents who, despite the impermanence of their situations, are beginning to lay tentative roots in the area.

As the foreign population grows in shrinking regions, the formation of cultural enclaves offers workers a semblance of community and familiarity. However, these enclaves also reshape the broader social landscape. Located strategically near industrial hubs to minimize transportation costs and maximize labor efficiency, these enclaves lead to pronounced physical and cultural segregation from mainstream Korean residential areas. While this proximity reduces transit times and costs, it creates stark disparities in living conditions between foreign and local workers, accentuating demographic shifts driven by industrial demands and geographical proximity. Such close-quarter living may exacerbate tensions and hinder the development of a cohesive community fabric.

Furthermore, this spatial separation restricts meaningful integration and results in a distinct type of socio-economic isolation. Workers find themselves bound to their immediate employment vicinities, often at the cost of community cohesion and personal well-being. These culturally segregated zones mirror characteristics of global immigrant districts, where economic necessities and the transient nature of the population take precedence over quality of life considerations. Local cultural adaptations occur in ways that accommodate yet distinctly isolate immigrant populations, embedding a transient reality within semi-permanent social frameworks.

This arrangement not only perpetuates the physical and social isolation of these communities but also presents substantial challenges for integrating these workers into the broader societal context. It impedes comprehensive community development and mutual understanding, reinforcing barriers that prevent the blending of foreign workers into the wider societal mosaic.

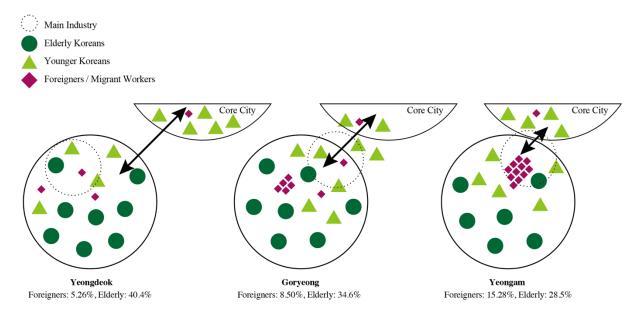


Figure 17 – Migration Patterns Observed



 $Figure\ 18-Scenes\ from\ Yeongdeok$



Figure 19 – Goryeong: Areas with High Foreign Population Density



Figure 20 – Yeongam: Areas with High Foreign Population Density.

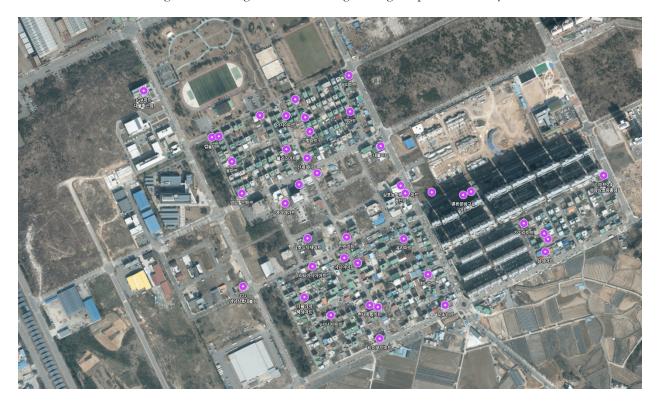


Figure 21 – Distribution of Grocery Stores in Yeongam's Foreign Resident Zones

6.4 Analyzing Demographic Perceptions

Discrepancies between perceived and actual demographic compositions in Yeongdeok, Goryeong, and Yeongam reveal profound insights into the social dynamics and integration challenges of these regions. Influenced by visibility, social interactions, and community roles, these variances significantly shape how different demographic groups perceive each other and gauge their own prevalence within the community (Table 11).

		Yeongdeok	Goryeong	Yeongam
Actual %	Elderly	40.4	34.6	28.5
Actual %	Foreigners	5.26	8.5	15.28
E-mi-n-m2 D-m-mi-n-	Elderly	61.25 (1.5 x more)	70 (2.0 x more)	16.11 (1.7 x less)
Foreigners' Perceptions	Foreigners	20.25 (3.8 x more)	30 (3.5 x more)	67.22 (4.4 x more)
Elderly Koreans'	Elderly	51 (1.3 x more)	57.5 (1.7 x more)	20 (1.4 x less)
Perceptions	Foreigners	11.6 (2.2 x more)	13.25 (1.6 x more)	80 (5.2 x more)
Younger Koreans'	Elderly	44.55 (1.1 x more)	50 (1.4 x more)	20.17 (1.4 x less)
Perceptions	Foreigners	10.75 (2.0 x more)	15.71 (1.8 x more)	27.83 (1.8 x more)

Table 11 – Demographic Data and Perceptions for Each Region

In Yeongdeok and Goryeong, there is a consistent pattern where both foreign residents and the elderly significantly overestimate their population percentages. For example, in Yeongdeok, foreigners account for only 5.26% of the population but perceive themselves to make up 20.25%. The elderly there believe they constitute 51% of the community, overshooting the actual figure of 40.4%. A similar trend is evident in Goryeong, where foreigners estimate their presence at 30%, vastly higher than the actual 8.50%, and the elderly perceive their group as 57.5% of the population, compared to the actual 34.6%. These inflated perceptions, particularly pronounced in these two regions, often stem from a visible concentration of these groups in specific labor sectors or residential areas, enhancing their perceived dominance over the actual numbers.

This sense of heightened visibility contributes to a feeling of alienation or otherness, especially when local populations perceive these groups as more dominant than they are. It fosters community interactions that are skewed by these perceptual biases, which can exacerbate feelings of segregation and misunderstanding.

Conversely, Yeongam presents an interesting contrast where the elderly underestimate their demographic presence, perceiving it as 20% compared to an actual 28.5%. Meanwhile, the perceived foreign presence dramatically inflates to 80%, against a real

figure of 15.28%. This stark discrepancy in Yeongam may be attributed to a high degree of isolation and segmentation within the community, likely driven by industrial concentration. Such a 'community bubble' distorts demographic awareness and exacerbates the impact of physical and social visibility on perceptions. Here, the visibility restricts day-to-day interactions predominantly to within demographic groups, often isolating them from the broader local population.

The challenge of building a truly integrated community in these shrinking regions is highlighted by the stark differences in perception among demographic groups. These differences, often distorted by the "availability heuristic," demonstrate how cognitive biases can influence community dynamics. This heuristic, as Tversky and Kahneman (1973) explain, leads to systematic biases by causing people to estimate the frequency of events based on the ease with which examples can be recalled, rather than actual occurrences (p. 209). This can result in the overestimation of highly visible or active groups within a community, such as foreigners in specific labor sectors or residential zones, which might suggest a higher level of integration than truly exists.

This overestimation can, paradoxically, lead to increased feelings of alienation among local residents, who may perceive these groups as dominating and thus threatening local culture and resources. Such perceptions can fuel resentment and deepen social divisions, obstructing real understanding and cooperation among different community segments. Moreover, when less visible groups are overshadowed, their needs may be neglected, leading to a misallocation of resources that fails to address the actual challenges of integration.

Additionally, the tendency to overestimate one's own group while underestimating others creates a social encapsulation that limits interactions outside one's immediate circle. As foreigner zones become more distinct, the separation from the local demographic structure grows, complicating efforts towards cohesive integration.

Furthermore, in areas with significant foreign populations, especially those tied to specific industries, the existing infrastructure often inadvertently promotes segregation. This structural separation is manifest in the minimal interactions between foreign residents and local Korean populations, including the elderly, thereby exacerbating spatial, cultural, and economic divides and hindering the goal of integration.

7. Integration Perspectives Among Foreign Residents in Shrinking Regions

Exploring the integration challenges and experiences of 14 foreign nationals from eight countries residing in South Korea's shrinking regions unveils a tapestry of migration narratives and adaptive strategies. The diverse group, comprised of marriage immigrants and foreign workers aged between 28 and 45, offers a window into the multi-layered process of adapting to a new society. With marriage immigrants typically logging longer stays of about 10.65 years compared to the shorter 3.75-year average of foreign workers, these narratives collectively highlight three pivotal themes impacting their lives: the nuances of perceived quality of life improvements, the critical role of social interactions in community integration, and the indispensable need for educational support to foster both personal and professional growth.

7.1 Quality of Life and Underlying Mobility Intentions

The majority of participants (85.7%) report a significant enhancement in their quality of life since moving to Korea, underscoring widespread satisfaction with the socioeconomic and cultural conditions offered. Yet, despite these positive evaluations, the desire to remain in the region is not universal. Over half of the respondents (57.1%) express intentions to stay, while a notable 28.6% contemplate relocation within Korea, particularly among marriage immigrants with 10 to 15 years of residency. This subgroup specifically cites a lack of amenities, such as high-quality shopping options and educational opportunities for their children, as driving factors for their mobility. Distinctly, the residency preferences of foreign workers reveal a divide: equally split between those wishing to stay in Korea and those preferring to return to their home countries, illustrating the often transient nature of their stay influenced by restrictive short-term visa policies. One respondent poignantly captures the sentiment of upward mobility, "Koreans have the capability, so they move to better places like Seoul. Foreigners living here also eventually want to move to Seoul or better places..."

7.2 The Interplay of Social Interactions and Community Engagement

Long-term residency, particularly among marriage immigrants who have been in Korea for over ten years, tends to foster deeper, more reciprocal social connections. This suggests that prolonged interaction can significantly enhance community integration. However, these positive interactions do not always correlate with a desire to remain in the same locality. For instance, 42.8% of respondents describe their relationships with locals as mutually beneficial, reflecting a strong network of social support and correlating with an average residence duration of 10.83 years. In contrast, 50% feel they primarily receive support from locals, which points to potential vulnerabilities and a slightly shorter average stay of 7.07 years. Additionally, about 7.1% report feeling indifferent, likely due to limited interaction outside professional contexts, underscoring the importance of diverse social engagements beyond the workplace.

Further insights into social integration are revealed through interactions with elderly locals. A significant 57.1% of respondents show a proactive willingness to assist elderly community members, associated with lengthy stays averaging 11.87 years. This suggests that extended exposure to Korean culture fosters altruistic behaviors toward vulnerable groups. Conversely, 21.4% of participants, primarily shorter-term foreign workers with an average four-year residency, report feeling indifferent, possibly reflecting insufficient social bonding or a focus on personal adaptation challenges. Additionally, 7.1% of respondents, particularly newer arrivals with a brief 1.5-year stay, express a need for support, underlining the acclimation challenges faced by recent immigrants.

The analysis of relationships between foreign nationals, local Koreans, and elderly Koreans underscores profound integration into Korean social life, especially among long-term residents. Notably, 28.6% of respondents, all marriage immigrants with an average residency of 13.25 years, report mutual support with Koreans and an active desire to assist the elderly. Additionally, 21.4% of respondents experience a dynamic of receiving support from the local community while also wanting to contribute to the elderly. This group, averaging 11.67 years in Korea, exemplifies the shift from dependence to reciprocal engagement, marking a maturation in their social roles within the community. This deep integration reflects significant assimilation into Korean social norms and a strong commitment to community responsibilities, illustrating that extended stays can enhance cultural adaptation and active societal participation.

Conversely, a smaller segment, 7.1% with an average stay of 7 years in Korea, feels disconnected from broader community dynamics but still acknowledges the importance of assisting the elderly. This selective engagement may be driven by a desire to gain social acceptance or fulfill perceived community obligations. Another 14.3% of foreign workers, with an average stay of 5 years, despite receiving help from locals, show indifference towards the elderly. This attitude may be influenced by their intent to return to their home countries, a short-term obligation to stay within the region, or their limited engagement outside of work. This group's attitudes, shaped by workplace cultures that prioritize efficiency over community-oriented values, highlight the role of professional environments in influencing broader social responsibilities. Additionally, 7.1% of participants, with an average 2-year stay in Korea, maintain beneficial relationships with Koreans but remain indifferent to the elderly, suggesting partial integration that may not extend to all community segments, possibly due to cultural or generational differences. Meanwhile, another 7.1% of newcomers, also with an average 2-year stay, actively seek to integrate into support networks that include both peers and older adults, demonstrating a bidirectional need and contribution dynamic.

Despite the importance of longer stays and interactions in reshaping community dynamics, foreign nationals in shrinking regions often note that their engagement with Koreans primarily occurs within professional and familial contexts. This indicates that while workplaces and family connections serve as crucial arenas for integration, they also represent the limits of their social world. Additionally, many of them are only able to live in Korea for short periods due to visa restrictions. This confinement of interactions to specific environments suggests potential barriers to broader community integration, emphasizing the need for strategies that expand social opportunities beyond these familiar settings.

7.3 The Crucial Role of Educational Support in Integration and Development

Linguistic challenges stand as a significant barrier to the integration of participants into Korean society. Notably, 42.9% of respondents reported difficulties with the Korean language, and 35.7% advocated for policy adjustments concerning the Korean language visa test. Furthermore, 21.4% highlighted the complexities posed by the hierarchical and respect-oriented aspects of Korean culture, such as the use of honorifics. These linguistic and cultural barriers not only complicate daily interactions but also significantly impede social integration. As one participant poignantly expressed, "The most uncomfortable and difficult thing is the Korean language. I can't speak or do what I want to do. Even people who have lived here a long time struggle to speak Korean..." This statement underscores the persistent struggle faced by foreigners and the acute need for targeted linguistic support.

Moreover, workplace communication challenges exacerbate these difficulties, particularly in environments where safety is paramount. Another respondent explained, "Language is the start of the problem. Whether it's in shipyards, factories, or ship-related work, it's all dangerous. So, when Korean co-workers shout warnings, communication failures often result in conflicts and insults, with older Koreans feeling disrespected due to cultural expectations around age." This narrative vividly illustrates how language barriers can lead to serious misunderstandings and conflicts in high-risk settings.

Educational support, particularly in language learning, cultural orientation, and vocational training, has emerged as crucial for adapting to life in Korea. A significant portion of participants, 42.9%, valued Korean language and cultural classes, emphasizing these resources as instrumental for both personal growth and professional advancement. Additionally, 14.3% of participants appreciated vocational and technical education, which further aids their integration into the local workforce.

8. Integration Perspectives Among Elderly Koreans in Shrinking Regions

Exploring the acceptance and perceptions surrounding the influx of foreign migrant workers through the experiences of 11 elderly residents in Korea's shrinking regions unveils a tapestry of growing acceptance and nuanced views. These participants, with an average age of 77.36 years, demonstrate a profound attachment to their region and a traditionalist outlook, with 81.8% indicating they would never consider relocating despite a familial diaspora in which 63.6% reported that their children no longer reside in the region. However, their narratives reveal an unexpected openness, highlighting five pivotal themes regarding their perception of foreign migrants: recognizing the indispensable role of foreign residents beyond economic considerations; marketplaces as catalysts for community integration; regional contentment influencing acceptance of cultural diversity; language as a primary barrier to integration; and historical reflections informing perception shifts.

8.1 Recognizing the Indispensable Role of Foreign Residents

In regions facing demographic decline, the local preference often leans towards attracting younger Koreans to rejuvenate the community. However, a notable 27.3% of the elderly residents display a progressive stance, showing no concern for the nationality or ethnicity of new residents, thus advocating for a diverse societal fabric. More significantly, 72.7% of respondents advocate for the permanent settlement of foreigners, starkly contrasting with the 27.3% who prefer a transient foreign presence. This strong preference for permanency is intricately tied to family dynamics, where those with close familial connections within the region are more likely to support stable, long-term integration of foreigners.

The community's acceptance of foreigners extends well beyond economic impact assessments. While a majority (63.6%) perceive the economic contributions of foreign residents positively, a substantial minority (36.4%) express skepticism, indicating nuanced views on the socio-economic integration of foreigners. The nature of belief in personal interactions with foreign nationals further complicates this view. Approximately 18.2% of locals who see economic growth potential also report a reciprocal ('We help each other') relationship with foreigners, suggesting an optimistic view towards a symbiotic community coexistence. In contrast, another 18.2% view their

support as one-sided ('I give help'), expecting economic benefits even from asymmetrical relationships. Meanwhile, 9.1% recognize mutual support but remain cautious about economic outcomes, and an equal percentage worry that even one-sided support could lead to adverse economic effects, underscoring a complex landscape of expectations and realties that transcends simple economic calculations.

Local narratives powerfully underscore the vital function foreign workers perform in sustaining the vitality of shrinking communities. One elder states, "Regardless of political views, we must embrace immigration. Our rural and fishing sectors depend on foreign labor. Without this workforce, our fields and waters would lie fallow, as the younger Koreans have relocated, leaving behind an aged populace." Echoing this, another adds, "Virtually all tough agricultural and marine tasks are undertaken by foreigners. It's work shunned by the younger locals, who are reluctant to endure such hardships." Such testimonials not only emphasize the crucial role of foreign workers in filling employment voids but also highlight a broader societal reliance on these individuals to maintain essential services and community stability in areas most Koreans have abandoned.

8.2 Marketplaces as Catalysts for Community Integration

Marketplaces often emerge as pivotal arenas for initiating and nurturing interactions between local residents and foreign workers. These communal spaces naturally facilitate the mingling of diverse populations, where locals frequently encounter foreigners engaging in daily transactions. Such interactions typically occur in the lively, informal settings of local markets, where the exchange of goods—such as exotic ingredients like cilantro, which has come to symbolize the presence of foreign cultures—marks the increasing visibility and integration of foreigners into the community fabric.

The significance of these market interactions extends beyond mere commerce. They are instrumental in breaking down barriers of unfamiliarity and fostering mutual recognition among residents. For many elderly locals, the marketplace is where they first notice the presence of new foreign residents, often before seeing them in other social settings. This early engagement in a familiar and essential community hub plays a crucial role in shaping perceptions, making the marketplace a linchpin in the community's acceptance and integration process.

Moreover, the day-to-day interactions within these marketplaces provide opportunities for local residents to witness the contributions and character of the foreign population firsthand. Anecdotal evidence from the community illustrates this point vividly: one local recounted an episode where a foreign shop owner corrected a payment error by an elderly customer, promptly returning the overcharged amount. Such acts of honesty and kindness not only endear foreign residents to the local population but also challenge and reshape preconceived notions, promoting a more inclusive community ethos.

8.3 Regional Contentment Influencing Acceptance of Cultural Diversity

A significant portion of the elderly population, 63.6%, believes that the integration of foreign residents will not disrupt local traditions, showcasing strong confidence in the resilience of their cultural heritage. This sentiment highlights an understanding that local customs can coexist with new cultural influences, enriching rather than diminishing their value. Conversely, another group, accounting for 18.2% of respondents, views the potential for positive cultural transformations optimistically. They anticipate that increased cultural exchanges and community events, driven by active integration efforts, could significantly enrich the community's cultural landscape.

Importantly, the level of regional contentment plays a pivotal role in shaping these perceptions. Respondents satisfied with their regional life, who average a satisfaction score of 3.44 on a scale from 0 to 5, are more likely to perceive the influence of foreign residents as either neutral or positive on local culture. In contrast, those harboring reservations about cultural disruptions report lower satisfaction levels, averaging 2.5, suggesting that dissatisfaction with one's immediate environment may amplify fears of cultural change.

The influence of regional contentment on acceptance of cultural diversity is evident in the correlation between residents' satisfaction with their living conditions and their beliefs toward the economic contributions of foreigners. Those who are content, reflected in an average satisfaction score of 3.67, generally believe that the presence of foreigners will positively impact the local economy. Conversely, individuals who are less satisfied with their living conditions, showing a lower satisfaction score of 3.12, tend to be less optimistic about the economic benefits brought by foreigners. Adding another layer of complexity, approximately 18.2% of elderly residents, who display a neutral or

indifferent stance towards direct intercultural relationships, still recognize the economic advantages that permanent foreign settlers might bring, underscored by a contentment score of 3.833. This group's perspective illustrates how economic optimism can exist alongside a detached approach to cultural integration, suggesting that even those not actively engaged in intercultural exchanges value the broader economic benefits that foreign residents contribute to their communities.

8.4 Language as a Primary Barrier to Integration

The interviews with elderly Korean residents consistently revealed that language barriers are perceived as the principal obstacle to successful integration of foreign residents. Many expressed concerns with poignant phrases like, "we won't be able to talk," "I wouldn't understand them," and "how would I talk with them?" This widespread apprehension about communication difficulties pinpoints a significant challenge in fostering meaningful interactions between local elderly and foreign newcomers. A notable 36.4% of respondents emphasized the urgent need for both cultural and language education programs, suggesting that without effective communication, positive interactions are severely limited. This segment of the population views the language not merely as a tool for basic communication but as a vital bridge to understanding and integrating into the broader community fabric. Additionally, 27.3% of participants, who were indifferent towards their relationships with foreigners, attributed their detachment primarily to these language barriers, reinforcing the notion that language proficiency is essential for deeper social connections.

8.5 Historical Reflections Informing Perception Shifts

In an insightful convergence of past and present, many elderly Korean residents see a direct parallel between the current wave of immigrants and their own national history of economic migration. Decades ago, scores of Koreans ventured abroad in search of better opportunities in countries like Saudi Arabia and Germany, driven by similar aspirations to those of today's foreign workers in Korea. This shared narrative of seeking prosperity far from home resonates deeply with the elderly, evoking a profound empathy for the immigrants' aspirations and struggles. Numerous elderly respondents reflected, "It's just like us in the past... maybe in 10-20 years, they will live better," capturing the collective hope that propelled many Koreans during their own diaspora

and now fuels the dreams of the new arrivals. This connection to Korea's past not only enhances the elderly's understanding of the immigrants' situations but also fosters genuine acceptance of their potential to flourish and contribute meaningfully to the community.

Acknowledging this historical empathy, 18.2% of the elderly believe that extending financial aid and various forms of support is essential for aiding the integration of these new residents. Their readiness to assist is rooted in a shared history of overcoming adversity and achieving economic improvement. Furthermore, another 18.2% of respondents call for a cultural evolution away from the rigid Confucian values that traditionally dominate Korean society. They argue that such a shift is crucial to fully embracing and integrating the diverse cultures that immigrants bring, mirroring the openness that benefited Koreans in their times of need abroad. This group envisions a society where diverse cultural inputs are not just accepted but are seen as vital to the enrichment and dynamism of the community, much like the contributions Koreans once made and received overseas.

9. Integration Perspectives Among the Younger Koreans in Shrinking Regions

Exploring the perspectives on community integration of foreign workers in shrinking regions, a survey involving 37 younger Korean participants, all under the age of 65 with an average age of 48.92 years, was conducted. The results reveal significant interaction with foreigners—97% of respondents have seen foreigners in their region, and 32% report frequent sightings across various everyday settings. These interactions offer insights into the younger Koreans' perceptions and experiences, highlighting three pivotal themes: generational differences in openness to foreign integration and regional satisfaction, the influence of regional satisfaction on the acceptance of foreigners, and the essential roles of systemic economic improvements and cultural understanding in promoting integration.

9.1 Generational Differences in Openness to Foreign Integration

A discernible pattern emerges among different age groups regarding their openness to foreign integration and satisfaction with their regional environments. Notably, younger residents display a more guarded or hesitant attitude toward foreign integration and are generally less content with their regions. This trend becomes more pronounced with decreasing age.

Young Adults (Ages 28-35) demonstrate a significant propensity for migration, with nearly half (44.4%) contemplating relocation. This cohort shows a strong preference for Korean newcomers (66.7%), although a considerable portion (22.2%) is receptive to any nationality. Despite frequent interactions with foreigners, more than half (55.6%) report no change in their perceptions, while a third (33.3%) experience a negative shift, indicating that interactions with foreigners do not uniformly result in positive views. Economically, a slight majority (55.6%) foresees benefits from the presence of foreigners, with opinions nearly evenly divided between supporting permanent (55.6%) and temporary (44.4%) settlements. Socially, most (66.7%) anticipate living independently of foreigners, although some expect mutual assistance (22.2%) or envision themselves as providers of aid (11.1%). The youngest cohort reports the lowest average satisfaction score at 2.56, suggesting a correlation between lower satisfaction and a more closed stance towards integration.

Middle-Aged Adults (Ages 40-55) exhibit lesser tendencies to migrate (28.6%), indicating stronger community ties or greater satisfaction with their living conditions. This demographic is notably inclusive, with 61.5% welcoming newcomers of any nationality, significantly higher than younger adults. Interactions with foreigners generally lead to positive outcomes, with nearly half (42.9%) reporting improved perceptions—markedly higher than in younger adults. Their economic optimism is robust, with 85.7% anticipating benefits from the influx of foreigners, possibly reflecting firsthand positive impacts or a recognition of the economic contributions of new residents. Most (57.1%) view their relationship with foreigners as mutually supportive, although a minority anticipates independent coexistence (35.7%) or challenging relationships (7.1%). Their average satisfaction score stands at 3.07.

Older Adults (Ages 55-64) are the least likely to consider migrating (7.1%), suggesting deep-seated connections to their locale. They often report unchanged perceptions following interactions with foreigners (64.3%), which might signify stable views or infrequent engagements with newcomers. However, a notable portion (21.4%) observes positive changes, indicating some adaptability. Economic perspectives are also optimistic (71.4%), with views on cultural impacts fairly balanced between positive (28.6%) and negative (21.4%) outcomes. This cohort's average satisfaction score is 3.5, the highest among the groups studied, illustrating a link between greater satisfaction and a more welcoming attitude toward cultural integration.

9.2 Regional Satisfaction as a Determinant of Foreigner Acceptance

The level of satisfaction with regional living conditions significantly influences perceptions of inclusion and acceptance among local populations, particularly concerning policy-making and the integration of foreign residents. This dynamic reveals how deeply regional contentment impacts social attitudes and expectations towards newcomers.

Residents who are highly satisfied with their local conditions often perceive themselves as having a substantial influence on local policy decisions. Among this group, 12.5% feel consistently included in policy-making, while 62.5% believe they have an average level of influence, and 25% still feel somewhat excluded. In contrast, those who are highly dissatisfied frequently feel marginalized from policy discussions, with 67% reporting a sense of exclusion from local decision-making processes. This stark disparity

underscores how satisfaction with one's living environment can shape one's perceived agency and inclusiveness within the community.

The economic and cultural expectations regarding the presence of foreigners also vary significantly with satisfaction levels. Among the highly dissatisfied, only 33% expect economic benefits from the arrival of foreign populations, while a striking 75% of the highly satisfied anticipate positive economic impacts. This optimistic view is even more pronounced among the moderately satisfied, with 90% expecting economic improvements. This gradient of economic expectations illustrates that contentment with local conditions can enhance openness to the economic contributions of newcomers.

Cultural perceptions similarly reflect this trend. While 78% of the highly dissatisfied predict no significant cultural shifts, potentially indicating a rigid stance towards cultural integration, the highly satisfied exhibit a more nuanced outlook. Among them, 37.5% anticipate negative cultural changes, an equal percentage foresee positive integration effects, and 25% predict no substantial change. This diversity of views among the satisfied suggests a more complex engagement with the concept of cultural change, possibly reflective of more extensive interactions with or deeper understanding of foreign cultures.

Social expectations towards newcomers further underscore the influence of satisfaction levels. Among the highly satisfied, a majority (62.5%) expect mutual assistance with foreigners, indicating a readiness for cooperative interactions, while 25% prefer to live independently, and 12.5% view themselves as potential helpers. In contrast, the highly dissatisfied lean towards independence, with 55% preferring to live separately from foreigners, although a third still open to mutual assistance.

These findings illustrate that regional contentment not only shapes perceptions of economic and cultural impacts but also molds social expectations and acceptance of foreigners. The more satisfied residents are with their local conditions, the more open and cooperative they tend to be towards newcomers, suggesting that enhancing regional satisfaction could be key to fostering more inclusive and integrated communities.

9.3 Economic and Cultural Aspects as Keys to Integration

Addressing the integration of foreign residents into local communities, respondents have articulated concerns that touch on economic and cultural dimensions, illustrating the complex interplay between these factors in facilitating smoother integration processes.

The economic concerns focus on the potential for job creation to enhance coexistence. Several respondents suggest that revitalizing the local economy by attracting businesses and expanding the tourism sector could not only create significant employment opportunities for both locals and foreigners but also promote social cohesion through increased interaction. Additionally, there is an expressed need for making the connection between job vacancies and suitable candidates more transparent. Respondents emphasize improving how job opportunities are communicated and filled, advocating for enhanced legal and community support structures that facilitate better communication and integration. This approach aims to ensure that all residents, irrespective of origin, have equal access to employment, which is seen as a crucial step toward economic integration.

Concurrently, cultural and linguistic barriers are highlighted as significant obstacles to integration. The necessity for comprehensive cultural and language education for foreigners is strongly supported, with suggestions for mandatory Korean language education for foreigners and cultural awareness programs for Korean citizens. These programs are envisioned to dismantle prejudices and foster an environment of mutual respect and understanding.

10. Challenges and Visions in Local Governance

Interviews with officials from 17 teams across four shrinking regions, specializing in demographic change strategies, elderly care, and foreign resident services, coupled with insights from three multicultural centers funded by both central and local governments, reveal the complex challenges these areas face. These discussions provide a multifaceted view of the systemic issues impeding effective local governance and community integration, contributing to a vicious cycle. Key challenges include: stifling local innovation due to an overreliance on central government funding; ineffective bureaucratic structures that impede departmental integration; navigating the mobility dilemma of foreign workers; legal and language challenges in employing foreign labor for essential services; financial strains and community tensions arising from demographic shifts; and the persistent exodus of youth and its impact on local development initiatives.

10.1 Overreliance on Central Government Funding

In regions facing demographic shifts and governance challenges, a palpable tension exists between the need for locally tailored initiatives and the limitations imposed by central government funding (Table 12, (Statistics Korea, 2024d)). There is a significant dependence on national funds, which, while essential, often stifles local creativity and initiative.

Year	National Average	Yeongdeok	Jindo	Goryeong	Yeongam
2023	50.1	11.3	14.5	19.5	11.1
2022	49.9	11.0	14.5	19.6	10.8
2021	48.7	11.0	17.3	17.6	11.9
2020	50.4	11.2	23.6	18.6	13.0
2019	51.4	13.4	13.9	20.7	12.4

Table 12 – Fiscal self-reliance⁵

Officials voice frustration and resignation, observing that many projects are not the result of an authentic assessment of local needs but are instead imitations of programs implemented elsewhere, dictated by central government policies. "I'm not sure if these initiatives are necessary for our region or if they're just being replicated because they're

 $^{^5}$ Fiscal self-reliance: The ratio of local taxes to total revenue in the general account and non-tax revenue; the higher the fiscal self-reliance, the greater the ability of independent fiscal operation: Fiscal self-reliance = (local taxes + non-tax revenue) / local government budget size X 100(%)

implemented in other regions as well," one official remarked. This mimicry leads to a cookie-cutter approach to addressing unique local challenges, where "local extinction" issues are tackled through government budget-matching projects rather than original, self-initiated efforts. "We are merely implementing nationwide projects prescribed by basic laws. There are no tailored population response policies for our specific challenges," another official noted.

The financial constraints placed on local governments force them to act only as executors of the national government's directives, with scant room for maneuver or innovation. "We can only act as directed by the national government. Our region merely allocates what we receive from above, often handed down from the provincial policy team," an official explained. This systemic rigidity not only hinders the development of innovative, region-specific solutions but also demoralizes those tasked with making impactful changes, perpetuating a cycle of dependency and inefficacy that fails to address the unique needs of shrinking regions effectively.

10.2 Ineffective Bureaucratic Structures Impeding Departmental Integration

The capacity of local governance to effectively manage demographic changes and integrate foreign residents is critically undermined by a compartmentalized administrative structure and excessive dependence on central government directives (Figure 22, Adapted from (Cho, Y. H., & Park, M., 2018, p. 20)). This issue is particularly acute in the domain of immigration and multicultural policy management, which is scattered across various central ministries such as the Ministries of Justice, Public Administration and Security, Employment and Labor, Gender Equality and Family, and Education.

At the local level, the execution of these policies frequently results in fragmented and inefficient strategies. Responsibilities intended to address immigration and multicultural challenges are often broadly categorized under 'Women's' or 'Welfare' departments. This legacy categorization, originally aimed at integrating marriage immigrants, now inadequately addresses the broader scope of managing diverse foreign workers, from agricultural laborers to fisheries staff. Each sector, managed separately by departments operates in silos, leading to inconsistent policy enforcement and service delivery that fails to meet the evolving needs of foreign workers.

Furthermore, the enforcement of immigration laws highlights the disconnect within the governance framework. The responsibility lies predominantly with the Ministry of Justice's Immigration Office, relegating local police to a reactive role. This limitation hinders comprehensive demographic assessments and proactive management of the foreign population, particularly undocumented migrants. Local authorities often lack the data needed to make informed decisions, as one official noted, "We only have records of registered foreign labor. There are many who come unregistered, and we cannot know the total number of foreigners."

This structural fragmentation not only impedes the development of effective, tailored local solutions but also fosters a disheartening environment for officials who must navigate these constraints. As a result, local governments find themselves acting as mere executors of national policies, with scant leeway for innovation or adaptation to local circumstances. The absence of interdepartmental collaboration and strict adherence to overarching guidelines further diminishes the ability of local administrations to tackle the unique challenges posed by their demographic landscapes. This stifles creative approaches to integration and community building, perpetuating inefficiencies and fostering a cycle of dependency that hinders the potential for a dynamic and integrated response to demographic shifts.

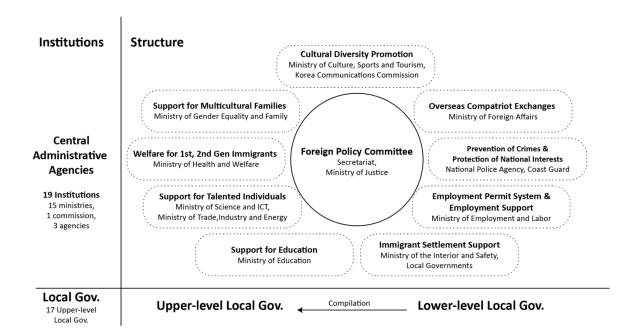


Figure 22 – Implementation Structure of Foreign-related Policies

10.3 Navigating the Mobility Dilemma of Foreign Workers

The high mobility of foreign workers poses a significant challenge to the integration and economic stability of shrinking regions. As these workers acquire skills and assimilate, they frequently relocate to more prosperous areas, drawn by higher wages and better opportunities, mirroring the migration patterns of younger local populations. This cycle of training and departure creates a persistent dilemma: the investment in training often benefits other regions more than the localities that initially fund and support these initiatives.

The transient nature of many foreign workers, especially those on short-term visas, exacerbates this issue. Local programs aimed at upskilling workers in high-demand fields such as welding or manufacturing often see their efforts diluted as trained workers leave for better-paying opportunities elsewhere. "There's no specific agency for foreigners wanting to learn skills... They learn these skills and then just leave for another region that pays more," explained a local official, highlighting the leakage of valuable human capital.

The scenario complicates further when regions attempt to attract higher-skilled migrants, such as international students, which inadvertently stirs local job competition concerns. While these skilled foreigners can enrich the local talent pool and contribute to diversity, their integration into the workforce can ignite tensions over job security and wage disparities between foreign and local workers. "Foreigners also contribute to national pensions, but there's dissatisfaction at local foreigner education centers," an official remarked, pointing out the friction between the economic contributions of foreigners and the local perception of their impact.

10.4 Legal and Language Challenges in Foreign Employment

The employment of foreign labor in essential services within shrinking regions faces significant hurdles due to legal restrictions and language barriers. These challenges are particularly acute in services that are critical to the aging population, such as caregiving, where proficiency in the Korean language is indispensable. The necessity for foreign workers to communicate effectively in Korean is not just a legal requirement but a practical one, ensuring they can provide the level of care and interaction required for elderly care services.

Language barriers extend beyond the workplace into daily life, impacting the integration and language acquisition of foreign workers. An official noted, "If Koreans approach to talk, they just run away. Foreigners tend to stick with their own groups, even at accommodation, reducing any language practice opportunities." This social isolation is mirrored in the marketplace where, despite regular interactions, foreign workers seldom engage in meaningful conversations, opting instead for silence. This behavior limits their language development and, by extension, their ability to integrate more fully into society.

These language issues are compounded by legal complexities that regulate the employment of foreigners in certain sectors. The legal framework often fails to accommodate the unique needs of shrinking regions, where the demand for essential services is high but the supply of proficient local labor is low. As a result, even when foreign workers are available and willing to fill these roles, bureaucratic obstacles and stringent language requirements can stymie their employment, leaving critical needs unmet and exacerbating the demographic challenges these regions face.

10.5 Financial Strains and Community Tensions

Shrinking regions experiencing demographic shifts due to a growing foreign population face complex challenges that extend beyond mere integration. These challenges manifest as financial strains and escalated local tensions, deeply impacting the social fabric and local governance efficacy. One of the most visible issues is waste management. Differences in cultural practices, such as trash separation, lead to significant administrative burdens. Local officials often lament that, "Foreigners don't separate trash, leading to increased administrative waste." This problem is further exacerbated by lifestyle discrepancies that give rise to noise complaints and disruptive behaviors at night, fostering resentment among local residents and making these areas particularly challenging for civil service operations.

Economic contributions of foreign markets, while adding diversity, are perceived to be limited in their local economic impact. The markets primarily benefit from custom tariffs that do not significantly benefit local coffers; instead, they contribute to a perception of economic segregation rather than integration. Local officials express a sentiment of disparity where the costs of integrating and managing a diverse population seem to outweigh the direct financial benefits. "It's the companies or foreigners that

benefit from work opportunities, while local governments bear the burden of increased service demands and financial constraints," one official explained.

Safety concerns also amplify community tensions, with an increasing perception of crime often attributed to the foreign population. While overall crime rates may not rise, the frequency of serious incidents can increase, leading to heightened security concerns. The presence of foreign-only clubs and drug-related problems are cited as contributing to a sense of insecurity among local residents, deepening the social divide and entrenching stereotypes that foster mistrust between different community groups.

Furthermore, the tax system suffers from the high mobility and sometimes undocumented status of foreign workers. Local authorities face challenges in tax collection, which are compounded by the undocumented migrants who often do not pay income or resident taxes. "We can't track them effectively, and they sometimes leave the country without addressing liabilities such as traffic accidents or other civil issues," a government official noted. This results in escalating tax arrears, with one region estimating an increase in uncollected taxes of approximately KRW 2.3 billion annually, further straining local budgets.

10.6 Persistent Youth Exodus and its Impact on Local Development

The persistent outflow of younger Koreans from shrinking regions poses significant challenges to the effectiveness of local development projects and initiatives aimed at revitalizing these areas. Interviews with public officials reveal a deep-seated concern regarding the limited impact of policies designed to retain or attract the youth population, primarily due to the unappealing nature of available job opportunities and the small scale of local businesses.

Officials describe the local job market as dominated by industries that fail to attract young professionals. Common roles involve basic labor tasks in sectors such as fishing, agriculture, or simple food packaging—jobs that no longer appeal to the aspirations of the younger generation seeking more fulfilling and financially rewarding careers. "The jobs are not good, and no matter what strategies we employ, young people continue to migrate out, leaving little impact on the community," one official explained. This trend is exacerbated by the difficulty in attracting higher-value professions to the area, such as doctors, despite competitive financial incentives. "No matter how much money we

offered, they wouldn't come, forcing us to gather funds locally to bring in just one doctor; it was that difficult."

The ineffectiveness of these initiatives is further highlighted by the limited success in attracting major companies to the region. Despite prepared plots and potential for development, the absence of substantial corporate presence means that the local economy remains stagnant, reliant on traditional and diminishing industries. "There are plots ready to attract companies, but the companies don't actually come," noted an official, emphasizing the disconnection between development plans and reality.

Moreover, some officials criticize the superficial nature of the revitalization efforts, likening them to "a garden in a pot," where small-scale projects might shift populations locally but fail to bring about genuine regional growth or change. "Even if they say they are revitalizing local areas, it's more about redistributing the existing population from one town to another within the shrinking regions. Ultimately, nothing changes," an official remarked.

The core issue remains the absence of desirable jobs that could anchor young people to their local communities. "Housing follows where the jobs are," an official stated, "There's no point in housing support projects if there aren't desirable jobs to attract and retain the younger population." This sentiment is echoed across conversations with local officials, who recognize that without a fundamental shift in the economic opportunities available, the trend of youth migration to larger cities with better prospects is unlikely to reverse.

This continuous migration not only undermines efforts to rejuvenate these regions but also contributes to a cycle of decline, where the lack of young residents stifles innovation, reduces the consumer base, and limits the overall vibrancy needed to sustain community life and economic growth.

10.7 Emerging Opportunities

Amidst the myriad challenges faced by shrinking regions, there emerges a beacon of hope through educational initiatives and innovative administrative strategies that aim to revitalize these communities and foster inclusivity.

10.7.1 Educational Empowerment and Community Revitalization

At the forefront of these efforts are educational programs designed to engage multiple generations, creating vibrant, interconnected communities. Central to this approach are initiatives such as the "universities for the elderly," funded by local governments to provide seniors with access to education tailored to their interests and needs. These programs, which encompass a range of activities from physical rehabilitation exercises to cultural enrichment courses like singing and traditional Korean medicine, have seen overwhelming participation. The success has led to a doubling of both participation rates and the associated budgets, reflecting the community's strong endorsement of these initiatives.

These educational centers also serve as vital generational bridges by combining elderly care with childcare facilities, allowing seniors to interact with and care for younger generations. This not only supports working parents but also enriches the lives of the elderly, fostering a sense of purpose and community connectivity. Furthermore, these centers include multicultural integration programs that aid foreign residents in acclimatizing to the community, particularly through language and cultural education, thus easing their integration process.

Local universities enhance these efforts by linking educational pursuits with practical applications in community service. They manage welfare centers and facilitate training opportunities, creating a seamless integration of academic learning and community development. This symbiosis between education and practical application underscores the role of academic institutions in societal integration and community support.

10.7.2 Strategic Stakeholder Collaboration for Enhanced Governance

Recognizing the complex demographic dynamics, local administrations have increasingly turned to comprehensive stakeholder engagement strategies. These initiatives involve robust collaborations among local governments, businesses, educational institutions, and the community at large to enhance governance and community support systems.

A pivotal aspect of this strategy is overcoming language barriers, which are addressed through the formation of foreign volunteer groups and monitoring teams. These teams, comprising community leaders from various backgrounds, play a crucial role in bridging communication gaps and facilitating broader community engagement. Their efforts are complemented by the use of online platforms and personal interactions that ensure newcomers are well-supported and integrated into the community fabric.

Moreover, partnerships between local businesses and educational institutions have been strengthened to link educational outcomes with employment opportunities, especially for foreign residents. This not only supports local economic growth but also provides stability for foreign workers, enhancing their integration into the community.

By embracing these educational and administrative innovations, shrinking regions are not only addressing immediate challenges but are also laying the groundwork for a more dynamic and sustainable future. These initiatives represent a proactive approach to community development, leveraging education and strategic collaboration to revitalize these areas and enhance the quality of life for all residents, fostering a more inclusive and vibrant community environment.

11. Conclusion

11.1 Synthesis of Findings in South Korea's Shrinking Regions

South Korea's shrinking regions face a constellation of structural and systemic challenges that critically undermine their potential for sustainable development. Central to these challenges is a rigid subcontracting system that suppresses economic diversity and engenders a workforce landscape dominated by low-appeal jobs. This lack of attractive employment opportunities fails to retain or draw in a young, skilled workforce, crucial for regional revitalization. Further compounding these difficulties is the heavy reliance on centralized government funding, which diminishes local governance's autonomy to forge innovative or locally-adapted solutions. This dependency precipitates bureaucratic inefficiencies and fosters a pernicious cycle of economic stagnation, driving potential innovators and skilled workers towards more prosperous regions, thereby intensifying the demographic and economic decline.

The demographic dynamics within these regions are heavily influenced by the high turnover rates of foreign workers, primarily engaged in menial labor. This transient workforce, while providing short-term labor market support, ultimately undermines long-term economic and community stability as these individuals invariably migrate to more affluent areas in search of better opportunities upon acquiring skills or nearing the completion of their contracts. Housing policies exacerbate this issue by confining foreign workers to specific enclaves near their workplaces, severely limiting their ability to integrate into broader community life and contributing to deep-seated social and cultural fragmentation. As a result, these regions serve as both entry and exit points for foreign labor in Korea, institutionalizing a cycle of demographic flux and cultural segregation.

Complicating the integration of these workers are significant cultural tensions stemming from lifestyle discrepancies and language barriers. These issues are particularly pronounced in matters such as waste management and noise control—areas where foreign workers' practices often clash with local norms, increasing administrative burdens and fueling local frustrations. Moreover, stringent legal requirements for high proficiency in the Korean language for key employment sectors alienate those unable to meet these standards, further hindering their integration. To address these multifaceted challenges, local governments and companies have undertaken substantial

restructuring to enhance support for language learning and to foster greater collaboration with foreign residents, often in partnership with local universities. These efforts are aimed at transforming these regions into vibrant educational communities where learning permeates every aspect of daily life, thereby stabilizing the demographic landscape and encouraging foreign workers to become long-term, integrated members of the community.

Marketplaces within these regions serve as critical social and economic hubs, often marking the initial point of contact between locals and foreigners. These vibrant centers offer opportunities for interactions that extend beyond mere transactions, potentially fostering a sense of shared community spirit. However, they can also become segregated enclaves that predominantly cater to the transient foreign population, providing essential services while simultaneously entrenching social and economic divisions. Located strategically near industrial areas to maximize labor efficiency, these marketplaces can exacerbate disparities in living conditions between local and foreign workers, reinforcing physical and cultural segregation and perpetuating socio-economic isolation.

Despite these myriad challenges, a notable openness among the elderly Korean population towards foreign workers persists, driven by a historical understanding of Korea's economic migration patterns. This generational empathy has cultivated a supportive approach towards integration strategies that emphasize mutual understanding and assistance. However, while long-term foreign residents often establish reciprocal relationships that significantly enhance community cohesion, newer and short-term residents may struggle with transactional interactions that impede deeper social connections. The quality of these interactions, profoundly shaped by generational attitudes and regional satisfaction, plays a crucial role in shaping local perceptions of cultural diversity and integration. Ultimately, the degree of regional satisfaction is a critical determinant of local attitudes towards the cultural and economic contributions of foreigners, underscoring the importance of fostering regional contentment to achieve successful community integration and ensure the vitality of shrinking regions.

11.2 Integrative Strategies for Aging Koreans and Migrant Workers

11.2.1 Urban Planning and Design Strategy

Visioning the Educative City

In regions characterized by demographic shifts and economic stagnation, implementing an urban planning model centered on education offers a transformative path. This innovative strategy envisions converting streets, public spaces, and buildings into interactive educational arenas that promote a culture of continuous learning, seamlessly integrated within the urban landscape. Such a reconceptualization positions these areas as incubators for broad future potentials while simultaneously strengthening community bonds. The strategy places particular emphasis on upskilling low-skilled foreign workers, enhancing their employability, and aligning them with regional values. Concurrently, it benefits the elderly through programs designed for intergenerational learning, ensuring that cultural knowledge is passed down and fostering a strong sense of community. By addressing language and cultural barriers, this model enhances regional resilience against demographic and economic challenges, allowing residents to thrive and maintain a connection to their roots, even if they relocate. Ultimately, this approach transforms these regions into vibrant hubs of knowledge and integration, enriching both their social and economic landscapes.

Implementing Educational Urban Design

The vision of transforming cityscapes into educative cities can be effectively implemented through urban design, which offers cost-effectiveness and scalability. Once elements like digital multilingual signage or cultural landmarks are established, they require minimal upkeep yet deliver continuous benefits to a broad audience. This sustainability contrasts sharply with traditional educational programs that demand recurrent funding, staffing, and resource allocation. By embedding learning directly into the city's infrastructure, urban design ensures that educational opportunities are not only more economically viable but also far-reaching, serving the entire community rather than just those who can attend scheduled sessions.

Urban design's inherent permanence fosters an environment of continual learning and accessibility. Educational opportunities become a permanent part of the environment, accessible to everyone at any time, not just during specific hours or in specialized

settings. For instance, interactive wayfinding systems and multilingual signage serve as ongoing learning aids, assisting with language acquisition and cultural familiarity on a daily basis. This approach guarantees that all city dwellers and visitors, regardless of their economic or social status, benefit from these educational tools, promoting a more inclusive and engaged community.

Additionally, urban design enhances community cohesion by embedding a shared cultural and educational vision into the city's physical landscape. This strategy is particularly effective in regions undergoing rapid demographic changes, as it helps integrate diverse populations and mitigate cultural tensions. By making cultural and linguistic education a visible and integral part of the urban landscape, these designs foster a sense of shared identity and collective belonging, crucial for maintaining social harmony in dynamically changing communities.

Urban design's flexibility and responsiveness to demographic changes are key advantages in educational strategies. As the needs and composition of a community evolve, so too can the educational elements integrated into the urban landscape. This adaptability allows urban design to remain relevant and effective, adjusting to new cultural dynamics and educational needs without the need for comprehensive overhauls—unlike static educational programs, which may quickly become outdated or misaligned with the community's current needs.

Lastly, urban design inherently reduces educational and cultural disparities by providing equal access to learning resources. Unlike programmatic educational initiatives that might inadvertently favor certain demographics, the educational tools integrated into urban design are available to everyone, thereby democratizing access to knowledge and cultural competency. This universal accessibility levels the playing field, ensuring that every resident has the opportunity to learn and grow within their community, thereby enhancing the overall quality of life and fostering equitable community development.

Marketplaces as Catalysts for Community Engagement

By reimagining local farmers' markets into centers of learning and cultural exchange, as multicultural hubs, these venues adapt dynamically to demographic shifts, creating spaces that mirror the diversity of the community. Introducing a broad spectrum of products—from international delicacies to traditional local staples—these markets

become microcosms of cultural fusion. Encouraging entrepreneurs of diverse backgrounds to set up shop marketplaces not only strengthens their economic utility but also positions them as pivotal venues for continuous cultural dialogue and learning. This also helps prevent the formation of cultural enclaves and division; such developments exemplify sustainable urban development, marrying economic growth with community-building goals and transforming marketplaces into collaborative ecosystems that support inclusive growth and cultural exchange.

Strategic Corporate and Community Collaboration

Effective housing and community infrastructure strategies require robust collaboration between local businesses, government bodies, and community organizations. Strategic placement of housing solutions such as dormitories or company-owned residences near marketplaces or central community facilities catalyzes daily interactions between locals and foreign workers, fostering social bonds and cultural integration. Repurposing vacant housing for foreign workers not only promotes deeper engagement with local life, thereby helping to dissolve cultural barriers, but also instills a sense of belonging and active community participation. These interventions enhance both the personal experiences of foreign workers and the community dynamics at large.

Integrating Industrial and Agricultural Zones with Local Commercial Areas

Addressing the segregation of foreign workers, who typically reside within industrial or agricultural zones close to their workplaces, necessitates the creation of connective pathways to nearby commercial areas. These pathways are intended to be multifunctional spaces incorporating parks, recreational areas, communal gardens, and community co-farming areas. Designed to bridge the physical and social divides, these spaces facilitate natural interactions and cultural exchanges, enhancing community cohesion and fostering mutual understanding. This strategic integration not only serves as a vital link for connecting diverse populations but also revitalizes underutilized urban spaces, thereby contributing to sustainable regional development and establishing a more integrated community fabric.

11.2.2 Policy and Community-Based Initiatives

Enhancing Workforce Mobility Through Flexible Policies

Adopting regional mobility permits within shrinking regions can significantly enhance workforce mobility and, by extension, regional interconnectivity and economic stability. Such permits would allow foreign workers to transition freely between jobs within similar industries across these regions, potentially increasing job satisfaction, reducing turnover, and achieving a more equitable distribution of economic benefits. This policy could adapt dynamically to the specific needs of shrinking regions, allowing industries to address labor shortages as needed. Further, integrating these mobility strategies within an 'educative city' framework, guided by urban design principles that promote continuous learning and interaction, can serve as a potent mechanism to leverage workforce mobility for enhanced knowledge sharing and regional connectivity. This approach not only addresses immediate economic and labor challenges but also builds a foundation for long-term cultural integration and regional resilience.

Empowering Multicultural Families as Community Bridge-Builders

Multicultural families, especially children, have tremendous potential to act as bridge-builders in their communities. Investing in the education and leadership development of children from these families can harness their unique bilingual and bicultural capabilities for community development. Specialized educational programs that focus on cultural competency and leadership skills can prepare these young individuals to play central roles within their communities, turning potential social challenges into opportunities for enrichment and cohesion. This strategic focus not only facilitates the integration of multicultural families into the societal fabric but also cultivates a new generation of community leaders capable of maintaining and enhancing the social and economic dynamics of their regions. Embedding such initiatives within the educational system prepares these children to navigate and bridge diverse cultural landscapes effectively, thereby bolstering overall community resilience and continuity.

11.3 Future Research Directions

Addressing the challenges of integrating elderly and foreign migrant workers in South Korea's shrinking regions, the future research outlined below aims to deepen our understanding and address the complexities identified in this study. These research directions focus particularly on enhancing strategies for demographic integration and urban planning effectiveness:

Urban Design as Integrative Learning Environments

- Investigate how urban design can serve as a pedagogical tool to promote cultural understanding and social integration between the elderly Korean population and foreign migrant workers. This research would explore the potential of public spaces, buildings, and city layouts to function as interactive environments that organically facilitate the coexistence and mutual learning of diverse demographic groups.
- Assess how urban design can influence public engagement and policymaking to create inclusive environments that cater to the needs of both elderly locals and migrant communities.

Historical Versus Contemporary Demographic Integration

- Compare historical demographic predictions with actual urban developments, focusing on the integration experiences of elderly and foreign migrant workers.
 Identify the accuracy of past forecasts and their implications for current urban planning strategies.
- Develop and refine demographic forecasting models using advanced statistical and machine learning techniques to enhance the accuracy and adaptability of predictions concerning these specific demographic groups.

Broadening Geographical Scope and Demographic Inclusivity

- Expand research to include a variety of urban, suburban, and rural areas across Korea to better understand different regional strategies and outcomes in integrating elderly and foreign migrant workers.
- Include a wider range of demographic groups while maintaining a focus on the primary study groups, providing a more comprehensive view of community dynamics and urban planning needs.
- Find similar context in different countries.

Systemic Hierarchies and Demographic Disparities in Shrinking Regions

- Examine the entrenched systemic hierarchies within shrinking regions and their impact on the social, economic, and political dynamics affecting both elderly Koreans and migrant workers. Study how these hierarchies contribute to regional disparities and population outflows.
- Explore how changes in these hierarchical structures can improve the integration and socioeconomic conditions of these key demographic groups.

Evaluating the Impact of 'Living Population' Matrix on Urban Sustainability

- Analyze how the dynamics between the aging Korean population and the influx of
 foreign workers influence the sustainability and resilience of shrinking regions under
 the new 'living population'. Assess how demographic diversity can be leveraged to
 foster economic vitality and sustainable urban development.
- This research should particularly focus on how urban policies and planning can be tailored to maximize the contributions of these groups while ensuring social cohesion and equitable growth.

These research directions aim to provide a more nuanced understanding of how urban design, demographic evolution, and systemic structures can be aligned to foster better integration and resilience in urban planning. By focusing on these interconnected areas, future research can make substantial contributions to the development of urban policies and planning strategies, ensuring that cities are better equipped to accommodate and benefit from demographic changes. This comprehensive approach seeks to create more inclusive, adaptable, and vibrant urban environments, prepared for future challenges and transformations.

11.4 Final Thoughts

In the evolving urban landscapes of Korea, the demographic shifts featuring an aging population and the influx of foreign workers necessitate a radical reevaluation of urban planning. These shifts reflect not just a logistical challenge but a profound societal query into the fabric of communal life. The elderly, bearers of the nation's rapid industrial legacy, and foreign workers, often resilient to harsh economic realities, are not just passive participants but active architects of urban rejuvenation. This synthesis of old wisdom and new perspectives forms a critical junction for socio-cultural and economic revitalization, urging us to view integration as imperative, not optional.

The economic interactions between these diverse demographics often reveal a complex narrative. Typically, these interactions are perceived as transactional—foreigners drawn by economic necessity, contributing to sectors that locals shun. Yet, this viewpoint belies the potential for deep-rooted communal ties that can arise from economic exchanges. Immigration policies and labor laws, often convoluted, not only govern the legality of such interactions but also shape the social landscape, influencing how integration is experienced and enacted.

Beyond the mere celebration of diversity through cultural festivals, true communal harmony requires embedding inclusivity in everyday urban practices. This means designing urban environments that foster not just tolerance but active engagement among different demographic groups. The recurring misunderstandings over communal practices, amplified by language barriers, suggest a deeper issue—a lack of shared narratives and common understandings, which are essential for genuine community integration.

This situation presents urban planning not just as a technical challenge but as a profound societal imperative. The transient nature of foreign workers, who often migrate to larger cities after acquiring language skills, points to the inadequacies in our current approach to community planning. This not only deprives smaller communities of long-term growth catalysts but also highlights the necessity for a more integrated approach in urban design and policy-making.

Rethinking urban spaces as 'living classrooms' can transform cities into landscapes of continuous interaction and mutual learning. This approach transcends traditional

educational boundaries, infusing urban infrastructure with opportunities for cultural and linguistic integration. Such a dynamic setup not only enhances the inclusivity of the community but also ensures that every member—regardless of age, nationality, or economic background—feels valued and understood.

Urban design must go beyond aesthetic functionality to narrate the collective memory and future aspirations of its inhabitants. From the preservation of historical sites to the incorporation of modern technology in public spaces, every element should reflect a commitment to community, transparency, and efficiency. Addressing the specific needs of vulnerable populations like the elderly and foreigners through thoughtful design—such as interactive kiosks and multilingual signage—can significantly reduce barriers to integration.

As cities strive to become true melting pots of diversity, the concept of a 'nudge'—subtle yet impactful urban design choices—can facilitate desirable social behaviors and cultural exchanges without imposing them. This nuanced approach to urban planning emphasizes the value of diversity, encouraging newcomers to weave their potential into the societal fabric, thus enriching the community.

Ultimately, this inquiry challenges us to fundamentally rethink our urban environments. It calls for a paradigm shift from seeing cities merely as places of economic activity to viewing them as crucibles of communal life, where economic and social dynamics are seamlessly integrated to foster not only survival but thriving communal relationships. This vision compels us to question how deeply we value the human connections within our urban spaces and whether our current urban designs and policies truly support the flourishing of these connections. As we stand at this crossroads, the decisions we make will shape not only our physical landscapes but also the legacy of our societal values and communal interactions for generations to come.

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13. Appendices

13.1 Appendix 1. Population Prediction Method

The Statistics Office of Korea employs the cohort-component method for population estimation. This method projects future population levels by analyzing individual factors of population change—births, deaths, and international migration. Initially, the method calculates the expected population for the upcoming year by applying a population balance equation: the baseline population is adjusted by adding births and net international migration, then subtracting the number of deaths. This method ensures consistency with the baseline population data from 2022.

Demographic Balancing Equation Formula:

$$P_{t+1} = P_t + B_{t+1} - D_{t+1} + NM_{t+1}$$

where:

- P_t : Population at time t

- B_{t+1} : Births from time t to t+1

- D_{t+1} : Deaths from time t to t+1

- NM_{t+1} : Net migration from time t to t+1

For projection purposes, the population is categorized by type and adjusted for changes in nationality. The projections utilize three scenarios based on varying levels of key demographic indicators: fertility rate, life expectancy, and net international migration. The 'median' scenario reflects moderate values of these indicators, while the 'upper' and 'lower' scenarios represent high and low values, respectively.

In 2022, the total fertility rate (TFR) for both nationals and foreigners was recorded at 0.79, with foreigners exhibiting a slightly higher fertility rate than nationals. Since 2015, the gap between national and foreigner fertility rates has been narrowing. By 2042, it is anticipated that the TFR will converge at approximately 1.04 for nationals and 1.12 for foreigners in the median scenario, 1.27 for nationals and 1.47 for foreigners in the upper scenario, and 0.80 for nationals and 0.81 for foreigners in the lower scenario.

Regarding mortality rates, certain age groups of foreigners had higher rates than

nationals in 2022. However, these rates are expected to align more closely by 2042.

Net international migration is projected using past data trends. For nationals, net migration rates from the past ten years—excluding outlier years—are used as a constant future rate. For foreigners, the model calculates incoming migrants using a first-order autoregressive model applied to the age distribution of entrants from 2010 to 2018. Emigration is estimated by applying historical emigration rates to the migrant entries. The net international migration is expected to decrease from 155,000 in 2022 to 67,000 in 2042. Specifically, migration figures for nationals will shift from a net loss of 61,000 in 2022 to a net gain of 12,000 in 2042, and for foreigners, from 215,000 in 2022 to 55,000 in 2042.

The assumptions for nationality changes are based on two key parameters:

- 1) Nationality acquisition rates compiled from Ministry of Justice data, segmented by age and gender.
- 2) An assumption that the average rates of nationality acquisition and loss, observed over the most recent five-year period, will persist throughout the projection period.

This structured approach allows for detailed and differentiated forecasts.

13.2 Appendix 2. Interview Guide

Survey Form (For Residents of South Korea) Demographic Information Gender M / F Occupation_ Duration of Residence____ _Family Composition Living Together Residence __ Number of Children_ Number of Grandchildren Migration Intentions and Aging Perceptions 1. Are you open to relocating to another area? 1) Yes 2) No 3) Unsure Please elaborate on your reasoning (e.g., job opportunities, quality of life, family reasons) What percentage of the population in this area do you estimate is elderly (aged 65 and over)? (____ How has the decline in the younger population affected your daily life and employment? 2) Moderately 1) Significantly 3) Negligibly Please describe the specific impacts With the potential influx of young individuals into your area, do you have a preference for Koreans or foreigners? 1) Koreans 2) Foreigners 3) No preference Please explain your preference Integration and Perception of Foreigners 5. Have you encountered foreigners in your locality? 1) Frequently 2) Occasionally 3) Never 4) Unsure If yes, where? Have there been any changes in your community as a result of foreigners? b. What areas do you think foreign residents live in, and what types of jobs do you believe they are likely to have? How have interactions with foreigners affected your views? What do you estimate is the foreign population percentage in your area? (____ How do you feel about having foreign residents as neighbors? 3) Neutral 1) Positive 2) Negative 4) Indifferent Please share your reasoning_ What expectations do you have for your relationship with foreign neighbors? 1) I will assist them 2) They will assist me 3) Mutual assistance Could you specify the nature of this assistance or lack thereof? In the context of foreigners moving into your area, would you prefer them to settle or to work temporarily and leave? 1) Settle 2) Work and leave Please specify_ 10. Do you anticipate the influx of foreigners will influence local culture? 1) Yes 2) No If yes, how? 11. How do you perceive the impact of an increasing foreign population on the local economy? Positive Negative 3) No change Please provide your rationale_ Coexistence Policies and Community Development 12. How satisfied are you with your current community life? 1) Satisfied 2) Dissatisfied 3) Neutral Please elaborate on your response_ 13. Estimate your level of participation in local planning and policy-making. (________%) 14. Share any suggestions you have for fostering harmonious living between local residents and foreigners.

15. If you have any additional comments or suggestions, please share them here.

Survey Form (For Foreign Residents of South Korea)

	bic Information Gender M / F	Current Occupation	Occupation Before Moving to			
_						
	Residence	Length of Residence in Korea	a Country/Region of			
Origin Details o	of Household Composition and Livin	or Arrangements				
octano o	r rrousenord Composition and Livin	g mangements				
Motivation 1.	what prompted your move to this	specific area within Korea, as oppos	sed to other cities?			
2.	Did you contemplate relocating to behind these considerations?	another country or region? If so, wh	which locations were considered, and what were the reas			
3.	How does your current quality of l	ife compare to before your relocatio	on?			
		orevious location 3) Comparable				
4.	Challenges anticipated before mov	ring and whether those challenges w	were realized or differed from their expectations			
Dancat tian	and Cocial Interactions					
5.	** and Social Interactions What is your viewpoint regarding to 1) Positive/Approachable 2 Reasoning) Negative/Challenging 3) Neutr	tral 4) Indifferent			
6.	How often do you engage with loc 1) Frequently 2) Occasionall Primary Contacts_					
7.	What characterizes your interactio 1) I will assist them 2) They Could you specify the nature of	will assist me 3) Mutual assistano	nce 4) No assistance			
8.	What do you estimate the percenta	age of foreign residents to be in this	s area? (%)			
9.	What is your estimate of the elderly population percentage (65 years and above) in this area? (%)					
10. 1) Γ	What are your thoughts when you Desire to assist 2) Seek assistance	encounter the elderly population in from 3) Find challenging to inter				
Cultural E 11.	Exchange and Adaptation What elements of your native culture	are would you like to introduce to K	Korea?			
12.	Which aspects of Korean culture h	ave been the most challenging for y	you to adapt to?			
Policy and 13.	, ,, ,	our adaptation process in this area?				
14.	1) Yes 2) No 3) Uncer					
			Reason			
15.	What specific policies or programs do you believe are necessary to support foreigners in this area?					
	·					

13.3 COUHES Exemptions

Wednesday, May 15, 2024 at 15:18:25 Eastern Daylight Time

Subject: Exempt Evaluation: Determination: E-5765, Kim

Date: Thursday, March 28, 2024 1:33:58 PM Eastern Daylight Time

From: COUHES_CONNECT@MIT.EDU

To: MinJi Kim, Brent D Ryan

The proposed research activities outlined in Exempt ID: E-5765: Shaping Future Amid Decline: Aging Koreans and Immigrants as Planners of Change **have been determined to be exempt**.

Your research has been determined to be Exempt.

As the Principal Investigator or Faculty Sponsor, you must adhere to the policies within the Investigator Responsibilities for Exempt Research and ensure that all members of the research team comply with these policies.

Your study may proceed as long as all research procedures correspond with responses within the Exempt Evaluation. If the scope or procedures of the research undergo significant alterations, you must submit a new Exempt Evaluation.

Any deviation or violation of the Investigator Responsibilities for Exempt Research or alterations from the study as described in the Exempt Evaluation must be reported to the COUHES office for further review.

E-5765, Shaping Future Amid Decline: Aging Koreans and Immigrants as Planners of Change.

Principal Investigator: Kim, MinJi Faculty Sponsor: Ryan, Brent Start Date: MAR-23-2024 End Date: MAR-28-2024

Determination(s): Exempt

Exempt Category 3 - Benign Behavioral Intervention

Research involving benign behavioral interventions where the study activities are limited to adults only and disclosure of the subjects' responses outside the research could not reasonably place the subjects at risk for criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation. Research does not involve deception or participants prospectively agree to the deception. 45 CFR 46.104(d)(3)

Exempt Category 2 - Educational Testing, Surveys, Interviews or Observation

Research involving surveys, interviews, educational tests or observation of public behavior with adults or children and disclosur! e of the subjects' responses outside the research could not reasonably place the subjects at risk for criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation. Research activities with children must be limited to educational tests or observation of public behavior and cannot include direct intervention by the investigator. 45 CFR 46.104(d)(2)

If you have questions, please contact COUHES directly:

This is an automated notification. Please do not reply directly to this email.

Massachusetts Institute of Technology COUHES - Committee on the Use of Humans as Experimental Subjects 77 Massachusetts Avenue Building E25-143b, Cambridge, MA 02139