# INFLUENCE OF SOCIO-SPATIAL VARIATION ON EDUCATIONAL ATTAINMENT AND SUCCESS IN MIZORAM

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# INFLUENCE OF SOCIO-SPATIAL VARIATION ON EDUCATIONAL ATTAINMENT AND SUCCESS IN MIZORAM

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## CERTIFICATE

This is to certify that the thesis entitled ***"Influence of Socio-Spatial Variation on Educational Attainment and Success in Mizoram"*** by *Mr. Malsawmtluanga* (Regd. No. MZU/Ph.D./1202 of 24.08.2018) Ph. D Scholar, Department of Geography and Resource Management, for the award of Doctor of Philosophy to the Department of Geography and Resource Management has been written under my guidance.

He has fulfilled all the requirements in the Ph. D. regulations of Mizoram University. The thesis is the result of his investigation into the subject. Neither the thesis nor any part of it was ever submitted to any other University for any research degree.

I also want to state that all the experts' comments and suggestions have been incorporated into the Thesis.

Dated: Aizawl (Dr. K.C LALMALSAWMZAUVA)

The: 21st June, 2024 Supervisor

## DECLARATION

Mizoram University

June, 2024

I **MALSAWMTLUANGA**, hereby declare that the subject matter of this thesis is the record of work done by me, that the contents of this thesis did not form basis of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the Degree of **Doctor of Philosophy in Geography and Resource Management.**

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# CHAPTER - I

# INTRODUCTION

## 1.1. Introduction

Education is a process that an individual undergoes to obtain new knowledge, information and skills. An educated person is accompanied by this knowledge and skills which improve his or her ability to perform in society better in a particular field. Educated People are the backbone of a family, society and a country. Noble (2015) stress the importance of Educated People in a family that they are usually breadwinners, influencers, supporter and decision maker of the family. They motivate and assist not only their family members but also their neighbours in their knowledge-acquiring and decision-making process (Pang, et al, 2003). Even as a country, how will it survive without Educated People? Mundy, et al. (2015) argued that educated people pay higher taxes, solve a country's problems, run big companies and make the Government function.

However, not all educated people are either successful or useful. I have seen many doctors and engineers who are alcoholics, unhappy and had a miserable life. Let's go back, what does 'success' mean anyway? It is a philosophical question. The definition of success may highly depend on the person who is defining it. An American writer and lecturer Dale Carnegie defines success as getting what you want (Carnegie, 2009). Some may define it as a happy life; others may define it as a wealthy one. Another excellent definition of success is not giving up. A renowned artist and singer Bon Jovi in his 2016 interview with Forbes, said, "*Success is falling nine times and getting up 10. It's about never giving up on your dreams, no matter how many times you get knocked down*." Achieving different life goals may also be considered a success. Having a positive impact on society is another reasonable definition. The answer may differ from one person to another and yet every person is searching for it. My favourite poet Robert Frost in his poem 'Stopping by the Woods on a Snowy Evening' said and I quote,

*"The woods are lovely, dark and deep,*

*But I have promises to keep,*

*And miles to go before I sleep,*

*And miles to go before I sleep”*

Even though it is so tempting to stop the journey and rest for a while, the author has a promise to himself, a duty to keep, a success to achieve. Success can also be in different fields such as business, art, education, politics, spirituality, etc, the present study mainly focuses on people who achieve success in academics and business.

The educational Achievements and Success of an individual are highly influenced by his or her life’s history and background. A life course approach, also known as life course theory, is the study of a person's life history and the investigation of how early events influenced decisions and events such as marriage and divorce, criminal activity, the incidence of disease, or success rate and level of educational attainment in the future (David J., 2007). This method was created in the 1960s to analyse how structural, social, and cultural factors affect people's lives. The foundations of this strategy can be found in groundbreaking studies from the 1920s, such as Mannheim's article on the "Problem of Generations" and the writings of Thomas and Znaniecki on "The Polish Peasant in Europe and America" (Elder et al., 2003). The present study adopted this approach to learn and analyse the relationship between a person’s life history and his or her present achievements.

The socioeconomic status of an individual or group is defined as "the social standing or class of an individual or group" by the American Psychological Association (APA) (APA 2018). The American Psychological Association uses education, income, and occupation to determine socioeconomic status (SES). Low socioeconomic status (SES) and its associated factors, such as subpar education, poverty, and poor health, have far-reaching effects on our society. Among various influences on academic achievement, the family's economic situation is the most critical. Peer pressure, school environment, and family dynamics are the key factors affecting a student's ability to finish their education.

Liberatos and colleagues (1988) suggest that the choice of the most suitable socioeconomic status (SES) measure is contingent upon several factors, including its conceptual relevance, its potential impact on the research, its adaptability to the specific study population, its appropriateness during the study period, its reliability and validity, the number of included indicators, its level of measurement, its simplicity, and its comparability with other measures.

SES has historically been defined and evaluated in various ways. Taussig (1920) initially described it as the employment status of the father. Later, Cuff (1934) adopted Sims' (1927) scorecard to assess SES, which included questions about home possessions, parents' educational backgrounds, the father's occupation, and other relevant information. Over time, the assessment of SES has become more complex, incorporating advanced techniques like component analysis or model-based approaches (NCES [National Centre for Educational Statistics] 2012).

As these three indicators represent different aspects of family background, SES is typically a composite variable that encompasses education, income, and occupation by the 1980s (Brese and Mirazchiyski, 2013). However, it's well recognized that collecting this data can be challenging. Issues such as data accuracy and privacy concerns, as noted by Keeves and Saha (1992), are significant. For example, because many children may not provide accurate information, the National Assessment of Educational Progress (NAEP) in the United States avoids directly collecting household income or parental occupation from students (Musu-Gillette 2016).

Researchers can choose which proxy variables to employ as SES measurements because the idea of SES is vague. For instance, Yang (2003) discovered that having a certain set of household objects can serve as a SES indication. Despite variation and restrictions in SES measurement, multiple researches have shown that it is related to student performance (Sirin 2005).

The significance of family socioeconomic status (SES) in shaping children's educational achievements has been a focal point of both theoretical and empirical research. Scholars have delved into the mechanisms through which family SES

influences children's academic success, identifying potential pathways. One such pathway draws on the concept of three types of capital – economic, cultural, and social capital – as expounded by theorists like Bourdieu (1986) and Coleman (1988, 1990).

In this study, the term "Socio-Spatial" pertains to the social components of one's background, including factors like parental relationships, education, occupation, income, family structure, as well as spatial aspects like birthplace and childhood residence. The marked disparities between rural and urban societies result in significant variations in a person's social context from one place to another. This socio-spatial variation and its relationship serve as a vital subject of exploration within the realm of human geography.

### 1.2. Significance of the Study

Different studies in different places have shown that the different aspects of personal background such as One's birthplace and childhood residence, Parents' educational level, Occupation, Income, and family structure have highly influenced educational attainment and success of one's life. Specifically, a Parent's income and wealth have a great influence on one's level of educational attainment and success.

Hällsten and Pfeffer (2016) discovered that the distribution of opportunity across many generations is significantly impacted by the inequality of family wealth, even in a relatively egalitarian setting like Sweden. However, the majority of the research was conducted in wealthy nations like the United States and Europe, where family money makes access to and quality of education easily affordable.

Therefore, it is interesting to study the influences of personal background and parent's occupation on one's life course in the tribal society of Mizoram where the range of personal background and price of education is low compared to them. Besides the above factors, one's level of educational attainment and success can be highly influenced by different factors such as the type of school during elementary and secondary classes, School attendance, Gender, and ethnicity (Considine and

Zappala, 2002). All these different aspects of living mould one's life course and lead him/her to success and failure. Therefore, this study will try to delineate an ideal path to follow to attain a higher educational level and success.

Most previous studies were mainly focused on Socioeconomic conditions, while the spatial factors have been widely neglected. In the study area, numerous individuals have achieved success in various domains. However, this research specifically focuses on individuals who have attained success in the field of education. The aim of this study is to explore the underlying factors contributing to the success of these individuals in the study area. This investigation is intended to provide insights that can be used to recommend appropriate measures for enhancing the overall success rate within the study area, particularly in the realm of education.

### 1.3. Objectives

1. To access the influence of social-spatial variation on educational attainment and success in Mizoram
2. To analyse the gender differences in students and successful persons in Mizoram.
3. To study the educational background of successful persons in Mizoram.
4. To identify the socio-spatial status of the students and successful persons in Mizoram.
5. To find out the major problems and motivations of students and successful persons in Mizoram.

### 1.4. Hypothesis:

1. There is a significant difference in the educational performance among the students and successful persons in Mizoram.
2. There is a significant influence of Parental education on the educational attainment and success of a person.

3. There is a significant influence of Parents' Income and Occupation on the educational attainment and success of a person.
4. Rural students are more likely to succeed in education than their urban counterparts.
5. Males dominated the educational success in Mizoram
6. Successful Persons mostly attend Government/Public Schools with English as a medium of Instruction.
7. Doctors and Engineers have the highest socio-spatial status in Mizoram.

## 1.5. Literature Review

Education is the basic requirement and the ‘Fundamental Right' of the citizens of a nation. While Higher Education is important, the Elementary Education system serves as the base over which the Superstructure of the whole education system is built (Mukherjee and Dipa, 2004).

### 1.5.1. Influence of Socio-Economic Status

A student's education is intricately tied to their life prospects, income, and overall well-being. Hence, it's crucial to gain a clear understanding of the factors that promote or impede their educational attainment (Battle and Lewis, 2002).

Research underscores that children from low socioeconomic status (SES) households and communities tend to develop academic skills at a slower pace compared to their counterparts from higher SES backgrounds (Morgan, Farkas, Hillemeier, & Maczuga, 2009).

Aikens and Barbarin also point out that a child's initial academic skills are strongly connected to the home environment. In environments with limited literacy resources and chronic stress, children's pre-academic skills may suffer. They go on to suggest that children from low-SES backgrounds may acquire language skills more

slowly, show delays in letter recognition and phonological awareness, and face an increased risk of reading difficulties (Aikens & Barbarin, 2008).

Moreover, a child's initial reading proficiency is closely linked to the home literacy environment, the number of books available, and the level of parental distress (Aikens & Barbarin, 2008).

Families from low-SES communities are less likely to have the financial resources or time availability to provide children with academic support (Prashant and Agrawal, 2017). Parents from low-SES communities may be unable to afford resources such as books, computers, or tutors to create this positive literacy environment (Orr, 2003).

Coley (2002) discovered that children from higher SES backgrounds excelled in tasks involving addition, subtraction, ordinal sequencing, and math word problems compared to their peers from lower SES backgrounds.

Palardy's (2008) Multilevel Latent Growth Curve Analysis revealed that students from low-SES schools entered high school with a 3.3 grade level gap behind their counterparts from higher-SES schools. Over four years, students from lower SES backgrounds made less progress, resulting in a 4.3 grade level gap upon graduation.

In a study concerning Chinese-American youth, Mistry, Benner, Tan, and Kim (2009) found that family economic stress and personal financial constraints were linked to emotional distress and depression in students, impacting their academic performance.

Researchers consistently emphasize that higher SES provides individuals with greater access to resources and support for academic achievement (Sirin, 2005).

Washbhune (1959) studied the relationship between socioeconomic status, urbanism, and college academic performance, indicating a strong connection between socioeconomic status and academic success. He suggested that

socioeconomic status influences educational opportunities and motivates students to pursue higher education when such opportunities are available.

Coster's (1960) research demonstrated that students from lower socioeconomic backgrounds experienced lower academic success than those from middle socioeconomic backgrounds. The study involved 900 high school students from high, middle, and low-income groups and identified a relationship between income and successful course completion, school and extracurricular activities, and continued education.

Sethi (1962) investigated the socioeconomic backgrounds of low achievers, finding that they often came from lower economic groups, while high achievers typically had better educational resources at home due to more affluent backgrounds.

Iver and Page (1962) analyzed the academic achievements of upper-class children, finding that higher social status often led to more distinction and intellectual accomplishments. Children born into higher-class families were more likely to excel academically.

Chopra (1969) studied the relationship between socioeconomic background and academic achievement, revealing that students from higher socioeconomic groups consistently scored significantly higher in subjects like English, Mathematics, and Science, compared to those from middle and lower socioeconomic groups.

Sharma (1982) delved into the impact of socioeconomic status and intellectual factors on academic achievement in arts, science, and commerce during the higher secondary stage. The study's goal was to uncover the connection between socioeconomic and intellectual factors and students' creativity. The research included 481 students and utilized Bager Mehdi's Non-Verbal Test of Creative Thinking as the primary tool. It found that creativity was more pronounced in nuclear families. Moreover, academic achievement in arts, science, and commerce was higher among students from higher socioeconomic backgrounds. The study ultimately determined a positive correlation between socioeconomic status and academic success.

In Deka's study (1993), the socioeconomic status of the family was identified as a factor contributing to a student's access to higher education and academic achievements. The significance of this relationship arises from the fact that higher socioeconomic status provides better educational resources and greater intellectual stimulation, advantages often lacking among socially disadvantaged children. Socioeconomic status was found to influence a student's interests, attitudes, values, motivation, and needs, thereby affecting their academic accomplishments.

### 1.5.2. Influence of Parent's Income

Families with limited means faced constraints when choosing neighbourhoods and educational opportunities for their children (Brooks-Gunn & Duncan, 1997).

Bjorklund et al. (2003) highlighted the strong connection between parental income and their children's educational accomplishments, echoing the oft-quoted sentiment, "Children's life chances should not depend on the size of their parents' wallets."

Bjorkman M. (2005) observed that a negative economic shock affects the performance of female students in two ways: marginal girls tend to withdraw from school more frequently than boys, and resources, particularly food, diminish more often for girls than for boys. However, girls often receive fewer resources or are required to devote more time to household chores than boys, and this can lead to better academic performance for girls.

Alissa (2010) noted that children's outcomes are at their lowest when poverty persists across generations and at their highest when material advantage is maintained. Social skills, although consistent across generations, do not significantly contribute to the current achievement gap between affluent and disadvantaged children. During the early school years, the achievement gap between children from the poorest and wealthiest homes widens most rapidly.

In Akanle's study (2007), parental wealth emerged as a crucial factor affecting the academic and career performance of secondary school students. It was found that parental financial resources were often insufficient to support the academic and social aspects of students' lives, particularly in rural and semi-rural school districts. This insufficiency can disrupt the psychological and homeostatic balance in the classroom, resulting in reduced student academic performance due to distraction, impaired focus, frustration, illness, and emotional stress. When a child's basic needs are unmet, it can lead to lower academic performance.

The financial resources available to families and children from disadvantaged backgrounds limit their opportunities (Crosnoe and Cooper 2010). Parents' ability to support their children's academic pursuits is closely linked to their economic well-being. In addition to economic capital, parents can transmit advantages to their children and perpetuate social class through cultural capital, which encompasses understanding cultural symbols and the ability to interpret cultural cues (Bourdieu 1986).

While the existence of poverty is undisputed, the precise manner and duration of its impact on students' ability to succeed remains uncertain (Duncan, Yeung, Brooks-Gunn, & Smith, 1998). Some educators, administrators, legislators, and community members suggest that the achievement gap may be overstated, with all students achieving to the same extent regardless of economic constraints (Brooks-Gunn & Duncan, 1997).

### 1.5.3. Influence of Parent's Education

Pettit et al. (2009) contend that parents' educational backgrounds influence how they shape their home environment and interact with their children to promote academic success. They further emphasize that parents, particularly those with higher education, can act as educators in the home, providing emotional stability and a stimulating atmosphere for their children.

Hauser (2009) delved into various studies to discern the fundamental mechanisms mediating the relationship between a child's educational attainment and their parents' educational background. He concluded that parental values and behaviours significantly impact how parents perceive their children's academic performance and how they convey these values to their children.

Hahs et al. (2004) noted that many students from less educated families are prone to experiencing low self-esteem and diminished self-worth. This is often compounded by limited parental encouragement to pursue higher education, leading to reduced aspirations for postsecondary schooling. An area less frequently explored is the influence of financial factors on other outcomes, such as children's education. Rumberger (1983) made one of his initial contributions by revealing a connection between parental wealth and children's education, independent of other socioeconomic indicators.

The relationship between parental education and educational attainment has been explained through distinct theories. Three main categories of hypotheses exist: economic theory, sociological theory, and genetic or biological theory (Haveman et al., 1991). Economic theory posits that parents with higher education are more likely to have the financial means to support their children's education due to higher socioeconomic status. Sociological theory suggests that well-educated parents often possess strong educational values and serve as role models for their children. Genetic or biological theory posits that the genetic transmission of intelligence reinforces the link between parental education and educational performance.

Beblo and Lauer's (2003) study also demonstrated a robust connection between parental education and children's educational attainment. They found that, all else being equal, children of self-employed individuals had better academic prospects than those of unemployed parents. Their conclusion highlighted the importance of human capital transfer from parents to children in perpetuating poverty across generations, rather than mere financial factors.

Ganzach (2000) examined the link between parents' educational goals and school success and their education levels and cognitive abilities. He found that both

mothers' and fathers' education levels play a vital role in explaining educational attainment. While the mother's education interacts with cognitive ability, there is no such interaction observed between mothers' and fathers' education in explaining academic performance. Ganzach also pointed out the potential bias introduced by solely focusing on the parent with a higher education level while neglecting the influence of the parent with a lower education level.

Nannyonjo H. (2007) discovered that students whose parents completed primary school or attained higher education levels, such as senior four, senior six, or university, achieved significantly better academically. Hanushek's research, in contrast to previous studies, showed the substantial impact of a student's female parent's education on the student's educational success. Male parents' education had a more pronounced influence. These findings underscore the importance of parental support in fostering their children's academic achievements and their involvement in literacy-promoting activities, school-related interactions, and assistance with homework.

Similarly, Okumu et al. (2008) established that high academic achievement among both male and female parents significantly reduces the likelihood of primary school dropout for both boys and girls in rural and urban settings when investigating the socioeconomic determinants of primary school dropout.

### 1.5.4. Influence of Parent's Occupation

Odoh et al. (2017) emphasized that parental educational levels and parental occupational status exert a significant influence on students' academic performance in accounting courses in Nigeria. They also identified a strong positive correlation between these variables. Among their recommendations was the suggestion that all three levels of government work together to enhance the academic performance of Nigerian students, particularly by offering educational support to illiterate parents through adult literacy projects.

Vernon (1958) conducted a study on the impact of parents' occupations on their children's educational achievements. The research highlighted that employment status is a pivotal socioeconomic factor closely associated with academic success. It further underscored the financial circumstances of parents, as students might face challenges in continuing their education without adequate financial support. The study illustrated the close linkage between social class and cultural level, emphasizing their significant impact on educational progress.

Checchi D. & Salvi A. (2010) reported a modest negative correlation in Ghana between the likelihood of enrollment in education and low-paying occupations. Conversely, they found a positive correlation in Mauritania between household heads engaged in public employment, often associated with more stable higher wages. Additionally, the study in Uganda revealed a positive trend in the coefficients of both male and female parents' education, indicating increased pressure on parents to educate their children. This is especially relevant when 'transfer' constitutes the primary source of income, contributing to higher school attendance rates.

### 1.5.5. Influence of School Attended

The school a student attends significantly shapes their educational experience and academic success, encompassing factors like the school's environment, composition, and structure. The under-resourced educational systems in low-SES areas often have a profound impact on students' academic progress (Aikens & Barbarin, 2008). Low-SES neighborhoods, as highlighted by Muijs, Harris, Chapman, Stoll, and Russ (2009), frequently grapple with high unemployment rates, the loss of highly qualified educators, and low educational achievements.

Peer pressure within school environments can also affect student performance, with research suggesting that school-related factors more than family-related factors contribute to SES disparities in learning rates (Aikens & Barbarin, 2008).

The academic achievement of students is closely tied to their teachers' years of experience and level of training (Gimbert, Bol, & Wallace, 2007). The quality of schools in low-SES neighborhoods can be improved through a focus on enhancing teaching and learning, creating information-rich environments, establishing learning communities, offering ongoing professional development, involving parents, and increasing funding and resources, as identified in research by Muijis et al. (2009).

Students in high-poverty school districts often encounter low expectations from teachers and have limited access to well-trained and experienced educators (Flores, 2007; Peske & Haycock, 2006). This aligns with Bugembe et al.'s findings from 2005, highlighting that child well-being at school plays a role in child retention and is intertwined with children's rights to adequate living standards, including shelter, nutrition, healthcare, water, and sanitation services, which are crucial for their growth and development. Many low-income households in metropolitan areas struggle to afford the cost of water, leading children to undertake long journeys in search of water, causing them to be late or absent from school.

Educational systems vary in their uniformity and funding consistency. For instance, in Finland, there is a relatively narrow economic and social status distribution among households, resulting in few funding disparities among public schools (Mostafa 2011). Widespread school homogeneity, as observed by Mostafa (2011), reduces the influence of school characteristics on student performance, fostering equality. Finland, often cited as an example, maintains a homogenous education system with minimal differences between schools, diminishing the impact of school characteristics on student outcomes. Montt (2011) explored over 50 school systems, including Finland, in the 2006 PISA cycle, revealing that more homogeneity in teacher quality is associated with reduced variation in learning opportunities within educational systems, potentially reducing educational inequality in achievement.

Hong Kong, despite having a significant income disparity, exhibited weak associations between socioeconomic position and mathematical proficiency among students in the PISA 2012 cycle, suggesting that most Hong Kong students,

regardless of their SES backgrounds, have relatively equal access to and benefits from the educational system (Ho 2010; Kalayclu 2015). The exceptional performance of Hong Kong in reading, mathematics, and science implies a high standard of basic education (Ho 2010).

Although schools bear ultimate responsibility for all student learning, previous significant educational research, such as Coleman (1966), emphasized that families, rather than teachers, held the key to overcoming obstacles and significantly improving the lives of children living in poverty.

### 1.5.6. Urban-Rural Influence

Pavithran and Feroze (1965) analyzed the influence of socio-economic factors on the achievement of tenth-standard students of Pathanamthitta Educational District, Kerala. The objective of the study was to find out the relationship between socioeconomic factors and scholastic achievement. The tool used was the questionnaire method and an achievement test was conducted. About 258 pupils were selected for the study. The study showed that there existed a significant relationship between the achievement of pupils and the educational status of families. Students in urban areas scored better marks than students in rural areas. The facilities in the home environment seemed to influence the achievement of pupils but not too seriously.

## 1.6. STUDY AREA

Aizawl serves as the capital of Mizoram, a northeastern state in India. Mizoram is the southernmost landlocked state in the northeastern region and shares border with Tripura, Assam, and Manipur, which are three of the Seven Sister States. It also has boundaries with Bangladesh and Myanmar, covering a total length of 722 kilometres.

Mizoram was previously a part of Assam until it gained recognition as a Union Territory in 1972. On February 20, 1987, it was accorded full state status through the fifty-third amendment of the Indian Constitution in 1986, becoming the 23rd state in India, one step higher than a Union Territory.

According to the 2011 census, Mizoram had a population of 1,091,014 residents, making it one of the least populous states in the country. The state covers an area of approximately 21,087 square kilometres, with about 91% of its land covered by forests.

Mizoram's education system is managed by both state and central governments, as well as private organizations. The medium of instruction in most schools is Mizo and English. Students who pass the Higher Secondary Examination (equivalent to grade 12) can pursue general or professional degree programs following the 10+2+3 educational model. Mizoram is home to various educational institutions, including the Central University (Mizoram University), the National Institute of Technology Mizoram, and the ICFAI University (affiliated with the Institute of Chartered Financial Analysts of India). Additionally, the Mizoram Institute of Medical Education and Research (MIMER), established in 2018, is a medical school offering 100 seats for the MBBS program.

### 1.7. Chapterization

The present study has been structured into seven chapters, each serving a distinct purpose:

This first chapter provides a comprehensive introduction to the study. It covers the conceptual and theoretical framework of the topic, emphasizes the significance of the study, defines the statement of problems being addressed, outlines the objectives, formulates hypotheses, conducts a literature review, and presents an overview of the study area.

The second chapter delves into the research methodology adopted for the study. It describes the selection of the study area, the methods used for sampling and determining the sample size, the technique of analysis employed, and outlines the limitations of the study.

Chapter three centres on the demographic profile of the students and successful individuals under investigation. It examines various demographic attributes, including age, gender, and marital status.

Chapter four is dedicated to exploring the educational background of the study participants. It assesses educational performance based on marks obtained in different standards, investigates the nature of educational institutions attended and scrutinizes the medium of instruction used.

The fifth chapter shifts the focus to the socio-spatial background of the students and successful persons. This section involves the analysis and identification of socio-spatial status using statistical techniques.

Chapter six underscores the major motivations and challenges faced by both students and successful individuals participating in the study.

The final chapter encapsulates the major findings from the study, discusses policy implications, and concludes the entire research, summarizing the key outcomes and insights obtained.

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# CHAPTER-2

# METHODOLOGY

## 2.1. Introduction

The methodology chapter in a thesis is of paramount importance as it outlines the research design and procedures, ensuring the study's validity and reliability (Leedy & Ormrod, 2014). It serves as a critical guide for researchers, allowing others to replicate and verify the study's findings, enhancing the credibility of the research (Silverman, 2016).

The methodology section in this thesis outlines the specific procedures and techniques used to conduct the research, including data collection, data analysis, and any relevant tools or instruments. The research methodology in this study furnishes a comprehensive description of how the research was executed. This enables readers to evaluate the trustworthiness and soundness of the study's outcomes. The methodology encompasses the selection of the study area, methods used to determine the sample size, sources from which data is collected, and the specific approach employed for data analysis.

## 2.2. Selection of the Study Area

Mizoram is chosen as the study area for several specific reasons. Firstly, it is where Mizoram University, the institution conducting this study, is situated. Secondly, the nature of this study necessitates a broader geographical scope beyond smaller areas like districts or cities, as focusing on those wouldn't provide a holistic view of the Mizo society. Thirdly, As the study includes the influence of spatial variation, a larger study area consisting of multiple urban and rural areas is needed. Lastly, given the study's emphasis on successful individuals hailing from different regions of Mizoram, residing in various cities and towns, investigating Mizoram as a comprehensive entity is deemed the most suitable approach to fulfil the study's goals and objectives. Therefore, Mizoram is the chosen setting for this research.

## 2.3. Sampling and sample size

As required by our objectives, samples have been taken from two different groups- Students from different institutions and Successful persons based on professions.

### 2.3.1. Students

For the present study, Master students and Research Scholars of Mizoram University and ICFAI University of Mizoram the two Universities in the state of Mizoram are taken into account for this Students category. To obtain the required samples, our sampling method was divided into two stages as under:

**Stage-I:** Firstly, due to the large and scattered population, a Proportionate-stratified sampling technique was applied, where the population was stratified into two strata such as: -

(1) Master Students

(2) Research Scholars.

**Stage II:** Secondly, to improve accuracy and reduce sampling error, the two main strata were further sub-classified into different sub-strata based on their departments. By considering 20% of the population as samples from every department from the two universities, 482 Samples for Master students were collected. And 143 samples of Research Scholars were taken from Mizoram University including every department which is 20% of the total research Scholar. Then, the total sample collected was **625 students.**

### 2.3.2. Successful Persons

As mentioned in the previous chapter, the current study focuses on educational success with business wholesalers as an exception. To obtain the required sample, the following stages of sample collection have been applied.

**Stage I:** Firstly, to address the scattered and sizable population, we employed a Proportionate-Stratified Sampling approach, wherein 20% of the population within each stratum was selected as our sample. The population was stratified into different strata based on their profession.

(1) University and College Teachers (Professors) (2) Medical Doctors

(3) Engineers (4) Group A Officers

(5) Business Wholesalers

**Stage II:** Secondly, to obtain 20% of the strata population, different sampling technique was applied in different strata due to differences in the size and nature of the strata population as: -

(1) University and College Teachers (Mostly designated as Professors for this study): Stratified random Sampling was applied. These professors were stratified into different colleges and University, and then from every college and university, 20% of the Professors was collected as samples. According to the MZU Annual Report 2019, there are 198 University teachers and 561 college teachers with a total of 759 teachers. From the total population, 151 samples were taken for the study which is 20% of the total population. Therefore, every college and University have its representatives.

(2) Medical Doctors: According to the data collected from the Indian Medical Association (IMA) Mizoram branch, there are 441 medical doctors in Mizoram. By using the Simple Random Sampling technique, 88 Medical Doctors were collected as samples which is 20% of the total population.

(3) Engineers: According to the Engineer Society of Mizoram, 310 engineers are working in various departments in Mizoram. From the population, 20% had been taken as samples which is 62 Engineers.

(4) Group A Officers: The total population under this category is huge. According to the Finance Department of Mizoram, there are 4262 group A officers in Mizoram. This includes all the school teachers, lecturers and other non-gazette officers. Therefore, to reduce the samples and sampling error without compromising our study, I let this category include only the Group-A gazette officer who is recruited directly by the Mizoram Public Service Commission. According to the booklet issued by the Mizoram Civil Service Association, there are 231 Group-A Gazette Officers in Mizoram. Then, from the total population, 20% which is 46 samples were collected by using a random sampling technique.

(5) Business Wholesalers: due to an uncertain population and unclear identification, the Purposive Sampling technique was applied in this stratum. 20 samples were collected purposively to achieve our objective among the Business wholesalers of Mizoram.

Therefore, the total Samples collected for the Successful persons were 151 Professors, 88 Medical Doctors, 62 Engineers, 46 Group A Officers, and 20 Business Wholesalers making a total sample of **367 successful persons.**

The total number of samples collected for this study including the students and successful persons was **992 Samples.**

| Table 2.1. Sample Size | | | |
|---|---|---|---|
| **Main Strata** | **Sub- Strata** | **No of Population** | **Samples taken** |
| STUDENTS | Master students | 2410 | 482 |
| | Research Scholars | 715 | 143 |
| | Total | 3125 | 625 |
| SUCCESSFUL PERSONS | Professors | 759 | 151 |
| | Medical Doctors | 441 | 88 |
| | Engineers | 310 | 62 |
| | Group A Officers | 231 | 46 |
| | Business Wholesalers | - | 20 |
| | Total | - | 367 |
| | TOTAL | | 992 |

## 2.4. Technique of analysis

ANOVA, Principal Component Analysis (PCA), Factor Analysis (FA), Student's T test, and Z score standardization techniques have all been used to statistically analyse the data that has been gathered.

### 2.4.1. Student's T Test

A t-test is a statistical method used to assess whether there is a significant distinction between the means of two groups or conditions, typically employed in research to evaluate sample means and determine if observed distinctions are likely to be the result of random chance. There are several types of t-tests, including the independent samples t-test, paired samples t-test, and one-sample t-test.

In the current study, we utilized an independent sample t-test to compare the mean scores of master's students and research scholars. The independent samples t-test is employed to assess if there is a statistically meaningful difference between the means of two separate groups and finds applications in various fields like psychology, education, and medicine (Student, 1908).

The formula for the independent samples t-test is as follows:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

Where:

*t* is the t-statistic

$X_1$ and $X_2$ are the sample means of the two groups.

$S_1^2$are $S_2^2$ the sample variances of the two groups.

n1 and n2 are the sample sizes of the two groups.

T-tests are valuable tools for comparing means and testing hypotheses, making them a key component of statistical analysis in research.

### 2.4.2. ANOVA

ANOVA, originally formulated by Ronald A. Fisher in 1921, is a fundamental statistical technique used to compare means among three or more groups (Fisher, 1921). This method assesses whether there are significant differences in means and helps identify which specific group or groups differ from the others. Scheffé's book in 1959 remains a classic reference on ANOVA methods, covering the theory and application of ANOVA techniques in depth (Scheffé, 1959).

One-way ANOVA, a subset of ANOVA techniques, assesses differences among three or more independent groups within a single factor (Fisher, 1925). This form of ANOVA (Analysis of Variance) is employed when researchers wish to establish whether there is a substantial difference in means among these groups. For a comprehensive introduction to one-way ANOVA and its uses, Maxwell, Delaney, and Kelley's textbook on experimental design and analysis is an excellent resource (Maxwell, Delaney, & Kelley, 2018).

The average marks obtained by Professors, Medical Doctors, Engineers, Group A Officers and Business Wholesalers were compared by using One-way ANOVA. The formula for the One-way ANOVA is as follows:

$$F = \frac{MS_{between}}{MS_{within}}$$

Where:

$F$ is the F-statistic, which follows an F-distribution.

$MS_{between}$ is the mean square for between-groups variation.

$MS_{within}$ is the mean square for within-groups (error) variation.

The F-statistic is used to test the null hypothesis that there is no significant difference among the group means. If the F-statistic is large enough, it suggests that at least one group mean is significantly different from the others, leading to the rejection of the null hypothesis in favour of the alternative hypothesis, which indicates group differences. This formula is the core of one-way ANOVA, a fundamental statistical method used for comparing means among three or more groups within a single factor. It helps researchers assess whether differences among these groups are statistically significant.

### 2.4.3. Turkey Honestly Significant Difference (HSD) test

The Turkey Honestly Significant Difference (HSD) test, introduced by John Tukey in 1949, is a valuable post hoc statistical test that is widely used for multiple comparisons in experimental research (Tukey, 1949). This test allows researchers to identify specific differences between group means after a significant result is obtained in an analysis of variance (ANOVA). Unlike the Bonferroni correction, which is more conservative, the Tukey HSD test strikes a balance between controlling the familywise error rate and being powerful enough to detect true differences. It does this by taking into account the variability within the groups and

the number of group comparisons being made (Miller & Miller, 2010). The Tukey HSD test is particularly useful in situations where there are three or more groups, and it provides a straightforward and interpretable way to compare group means and determine which groups are significantly different from each other. Its widespread use in various fields underscores its importance as a tool for robust statistical analysis, particularly when conducting experiments involving multiple treatment groups.

### 2.4.4. Z Score Standardized Techniques

The original data underwent normalization using the Z-score standardization method, and a composite index was computed. Data obtained from primary and secondary sources were converted into variables to serve as indicators. These indicators were standardized by subtracting the mean from each variable and dividing it by its standard deviation, as demonstrated in the formula below. This transformation was done to convert the data matrix into a scale-free matrix.

$$Zi = (Xij - Xj)/SDj$$

Where:

*Zi* is the Z-score for the ith unit

*Xij* is the X variable in the ith unit and jth variable

*Xj* is the mean of jth variable and,

*SDj* is the standard deviation of the *jth* variable

After obtaining the Z-score for every indicator, a composite score was obtained by adding up of all individual Z-score or standard data as-

$$Ci = \Sigma Z$$

Where Ci is the composite scores and ΣZ is the summation of Z-scores.

### 2.4.5. Principal Component Analysis

Principal Component Analysis (PCA) is a powerful statistical technique widely employed in data analysis and dimensionality reduction, with applications spanning various fields. It was originally introduced by Karl Pearson in 1901 as a method for reducing the dimensionality of data while preserving the most critical information (Pearson, 1901). PCA plays a pivotal role in simplifying complex datasets, uncovering underlying structures, and facilitating visualization and interpretation.

PCA begins with the concept of identifying the primary sources of variation in a dataset. Each of these sources is represented as a principal component. These components are orthogonal, meaning they are uncorrelated and capture the most significant sources of variance. The initial principal component accounts for the most significant portion of variance within the data. Subsequent components explain progressively smaller portions of the variance, resulting in a ranked hierarchy of importance.

In mathematical terms, PCA seeks to identify linear combinations of the original variables that maximize the explained variance. The first principal component, $PC_1$, can be expressed as:

$$PC_1 = a_{11}X_1 + a_{12}X_2 + \ldots + a_{1p}X_p$$

In this equation, $a_{11}$, $a_{12}$, …, $a_{1p}$ are the coefficients or loadings for $PC_1$, and $X_1$, $X_2$, …, $X_p$ represent the original variables (Jolliffe, 2002).

Subsequent principal components, such as $(PC_2, PC_3, \ldots)$, are calculated in a similar manner, ensuring that they are orthogonal to the previous ones while capturing the remaining variance. PCA retains the most significant sources of variation while eliminating noise or less essential components.

In summary, Principal Component Analysis (PCA), first introduced by Karl Pearson more than a hundred years ago, remains a foundational technique in data analysis, statistics, and machine learning. It excels in simplifying complex datasets, visualizing data, reducing dimensionality, and aiding in feature selection. Its versatility and broad applicability have made PCA an indispensable tool for researchers and data scientists across diverse domains.

### 2.4.6. Factor Analysis (FA)

PCA and factor analysis (FA) share similar methods and constructs. However, they differ in their fundamental assumptions.

In Factor Analysis, it is assumed that the observed data are influenced by underlying latent factors, and the variance in the data can be separated into that which is explained by common factors and unique factors.

On the other hand, PCA is based on linear combinations of data variables, without the explicit assumption of latent factors. It aims to maximize the variance in the data using these linear combinations.

### 2.4.7. Developing Weights Using PCA

PCA and FA can be employed to derive weights for composite indices without requiring any prior assumptions about the importance of various dimensions. The creation of a composite socio-spatial Status index was a primary objective in this study, and PCA has been found to be an effective method for weighting due to its simplicity and capacity to represent the information content of different variables (OECD, 2008). Both PCA and FA are commonly used multivariate statistical approaches for weighting composite indices (Booysen, 2002).

In this study, a novel weighting methodology developed by Nicoletti et al. (2000), as applied by Greyling (2013) and OECD (2008), has been utilized. This

method involves weighting a composite index by considering the factor loadings of all extracted components. One notable feature of this approach is its ability to explain a significant portion of the data set's variability (Greyling, 2013).

### 2.4.8. Calculation of Composite Index

The following formula is employed to calculate the Composite score after weights for each indicator have been obtained and the index values of all students and successful people have been calculated.

$$I = \sum_{j=1} Xi \left( \sum_{j=1} /Lij/.Ej \right) / \sum_{i} \left( \sum_{j=1} /Lij/.Ej \right)$$

Where I is the index, Xi is the i-th Indicator; Lij is the factor loading of the i-th variable on the j-th factor; E is the Eigen Value of the J-th factor.

## 2.5. Limitations of the study

The limitations of the study are as follows: -

1. **Large Population of Master Students:** The study encountered challenges due to the vast population of Master's students, making it difficult to achieve a perfectly accurate and representative sample. The sheer size of the population may have resulted in sampling limitations, potentially affecting the generalizability of the findings.
2. **Background Analysis with Memory-Dependent Responses:** As your study involved a background analysis and relied on respondents' recollections of past events and experiences, there is a potential limitation related to memory accuracy. Respondents may not remember details completely or accurately, which could introduce recall bias and affect the reliability of the data.
3. **Lack of Data on the Population of Business Wholesalers:** Another limitation is the absence of comprehensive data on the population of business

wholesalers in your study area. With only a small sample of 20, there is a risk that this sample may not adequately represent the entire population of business wholesalers, potentially impacting the generalizability of your findings to this group.

4. **Use of Outdated Secondary Data:** The inclusion of secondary data, such as the total number of engineers, medical doctors, and Group A officers, from a past year (2015) introduces a limitation related to data currency. Over time, demographic and professional statistics can change, and the use of outdated data may not accurately reflect the current situation, potentially affecting the relevance of the findings.

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# CHAPTER-3

# DEMOGRAPHIC PROFILE

## 3.1. Introduction

The demographic facets of the study are covered in this chapter. It is a summary of key demographic characteristics of a study. These characteristics particularly include the individual's age, gender, and marital status. Other characteristics such as education, income, geographic location, and more will be analyzed in different chapters. Demographic profiles are used in order to comprehend the composition of a population or a specific segment of a population.

Demographic studies hold paramount significance in contemporary society as they offer critical insights into the composition, trends, and dynamics of populations. These studies enable informed decision-making in areas such as public policy, healthcare, economics, and urban planning. Governments and policymakers rely on demographic data to formulate policies that address the needs of diverse population groups (United Nations, 2017). In healthcare, demographic studies help allocate resources efficiently, predict disease patterns, and plan for the healthcare needs of different age groups (World Health Organization, 2021). Economists use demographic data to analyze labour force trends and consumption patterns, which are essential for economic planning (Mankiw et al.,1992). Furthermore, urban planners rely on demographic studies to design cities, including infrastructure development, transportation systems, and housing, based on population density and distribution (United Nations, 2015). In sum, demographic studies are foundational for understanding the present and preparing for the future in a wide range of fields.

## 3.2. Age

Age is a significant factor that can influence educational success and achievement. Understanding the relationship between age and academic performance is crucial for teachers and policymakers to design effective educational assistance

and encouragement systems. This literature review explores existing research on the impact of age on educational success across various educational levels and settings, from early childhood education to higher education. The review examines the effects of age on learning styles, social-emotional factors, and educational transitions.

Learning styles may change with age as students mature and develop different learning preferences. Dunn and Dunn (1992) found that younger students may benefit from more hands-on and experiential learning approaches, while older students may prefer more independent and self-directed learning. Educators can use this information to tailor teaching methods to suit the learning preferences of students at different developmental stages.

Age can also influence social and emotional development, which, in turn, affects educational success. Younger kids may have trouble controlling their emotions and decisions, which can cause attitudinal issues in the classroom and possibly have an effect on their academic achievement, according to Eisenberg et al. (2001). On the other hand, older students may experience increased peer pressure and social stressors, which could influence their motivation and engagement in school (Hawkins, Catalano, & Miller, 1992).

Transitions between educational levels are critical periods that can influence academic motivation, engagement, and achievement. Eccles and Wigfield (2002) emphasized the importance of early adolescence and the transitions from primary to secondary school and from high school to college. These transitions can be challenging for older students as they adapt to new educational environments, social structures, and academic expectations.

### 3.2.1. Age of Schooling

The table (table 3.1) delineates the average age at which individuals initiate their educational journeys within two overarching categories: "Students" and "Successful Persons." Within the "Students" category, two subcategories, namely Master Students and Research Scholars, exhibit distinctive starting age profiles.

Master Students commence their academic pursuits at an average age of 4.79 years, indicative of an early onset of higher education, perhaps underscored by the pursuit of specialized knowledge at an earlier stage. Conversely, Research Scholars commence their educational trajectories at a slightly later age, with an average starting age of 5.18 years, potentially reflecting the preparatory nature of their academic paths.

In contrast, the "Successful Persons" category encapsulates a diverse array of professions, encompassing Professors, Medical Officers, Engineers, Group-A Officers, and Business Wholesalers. The data therein portrays a continuum of educational initiation ages, with Professors embarking on their scholarly journeys at an average age of 6.32 years. Medical Officers begin their education at age 5.98, Engineers at age 5.61, Group-A Officers at age 6.67, and Business Wholesalers at age 6.24.

**Table 3.1. Age**

| **Main Category** | **Sub-Category** | **Average Age** ***(Starting age of Schooling)*** | **Average Age** ***(At the time of Joining the profession)*** | **Average Age** ***(Current)*** |
|---|---|---|---|---|
| STUDENTS | Master Students | 4.79 | - | 22.82 |
| | Research Scholars | 5.18 | - | 28.23 |
| SUCCESSFUL PERSONS | Professors | 6.32 | 31.03 | 42.55 |
| | Medical Officers | 5.98 | 26.32 | 39 |
| | Engineers | 5.61 | 27.57 | 40.36 |
| | Group-A Officers | 6.67 | 33.26 | 40.76 |
| | Business Wholesaler | 6.24 | 28.8 | 48 |

*Source: Field Survey, 2019-2022*

The difference between the starting age of schooling for students (4.79) and those who already have a profession like doctors (5.98), Engineers (5.61), Professors (6.32) and are older can be seen from the following data, which shows a trend that people are attending school younger and younger as compared to the last few decades. However, this younger commencement of schooling could hurt students' cognitive, and academic preparedness and performance. The age at which kids enter school can have lasting effects on their academic readiness and performance. Bedard and Dhuey (2006) examined the connection between school entry age and test scores in the early grades. They found that kids who start school at an older age tend to have higher test scores, suggesting that relatively older children may have certain advantages in academic readiness.

Cognitive development is also influenced by age, as different cognitive abilities mature at different rates throughout childhood and adolescence. Flavell (1999) highlighted those cognitive abilities, such as memory, problem-solving, and abstract reasoning, continue to develop and improve with age. These cognitive advancements can impact academic performance and the ability to comprehend complex concepts.

### 3.2.2. Age of joining Professions

The student's category has been excluded in this section because they are still learners and do not have any sort of profession. Table 3.1. shows that Professors join their profession at an average age of 31.03 years, implying that they have undergone extensive educational and academic preparation before entering the field of teaching. Medical Officers and Engineers begin their careers at similar ages, around 26.32 and 27.57 years, respectively, indicating a balance between education and early entry into their respective fields. These types of professions are technical, and because there are so many technical job openings in Mizoram after completing their studies like MBBS and B. Tech, they typically start their careers right away.

Group-A Officers have the highest average age of entry, at 33.26 years, suggesting that becoming a Group-A Officer typically involves a prolonged educational journey and competitive selection processes. It has been discovered from field observations and interviews that many Group A officers held lower-level positions before becoming Group A officers, which is the primary cause of their delay in joining the current profession. Business Wholesalers enter their profession at an average age of 28.8 years, reflecting a later start in the business sector, potentially after acquiring relevant experience.

### 3.2.3. Current age

Table 3.1. shows that the mean current age of people in different professions. It also shows that the mean current age is typically higher for people in more senior positions than the current age of the samples. The average current age of people in different professions varies widely, ranging from 22.82 years for Master Students to 48 years for Business Wholesalers. The average current age is higher for people in the Successful Person category than for people in the student category. The average current age among the successful person is highest for Business Wholesalers (48 years) and lowest for Medical Officers (39 years). The average current age of Research Scholars (28.23 years) is higher than the average current age of Master Students (28.82).

To conclude, the chapter's section on age paints a clear image of each person's current age, the age at which they began attending school, and the age at which they began working. The age difference between the youngest master's student and the oldest wholesaler is then discovered to be almost two decades. The average age of entry into school has increased from the older generation to the younger generation as a result of generational differences in educational awareness and advancement over time. The average age of entry into each profession varies without regard to the age of entry into school, Group-A officers have the highest entry age into their career because of their prior employment.

### 3.3. Gender

Gender is a critical social factor that can significantly impact educational success and achievement. Understanding the connection between gender and academic achievement is essential for developing equitable educational policies and practices.

Several investigations have looked at the connection between gender and performance in school. Hyde and Mertz (2009) carried out a meta-analysis of research on gender differences in mathematics performance and discovered that, on average, there were no significant differences in mathematical ability between males and females. However, boys tended to have a higher variance in performance, resulting in more male students at the distribution's low and high edges

Gender disparities in involvement in Science, Technology, Engineering, and Mathematics (STEM) fields have been a subject of extensive research. Ceci et al. (2014) investigated the factors influencing the underrepresentation of women in STEM disciplines. They found that gender differences in career aspirations and interests were primarily influenced by sociocultural factors, rather than inherent cognitive abilities.

**Table 3.2. Gender**

| Main Category | Sub- Category | Male | Female | Others |
|---|---|---|---|---|
| STUDENTS | Master Students | 203 (42.12%) | 277 (57.47%) | 2 (0.41%) |
| | Research Scholars | 73 (51.05%) | 69 (48.25%) | 1 (0.70%) |
| | TOTAL | 276 (44.16%) | 346 (55.36%) | 3 (0.48%) |
| SUCCESSFUL PERSON | College and University Teachers | 82 (54.30%) | 69 (45.70%) | - |
| | Medical Officers | 48 (55.54%) | 40 (45.45%) | - |
| | Engineers | 58 (94.54%) | 4 (6.45%) | - |
| | Group-A Officers | 31 (67.39%) | 15 (32.61%) | - |
| | Business Wholesaler | 16 (80%) | 4 (20%) | - |
| | TOTAL | 235 (64.03%) | 132 (35.97%) | - |
| GRAND TOTAL | | 511 (51.51%) | 478 (48.18%) | 3 (0.31%) |

*Source: Field Survey, 2019-2022*

Table 3.2 presents data on the gender distribution of individuals belonging to two main categories: Students and Successful Persons. The table includes sub-categories such as Master Students and Research Scholars under the Students category, and Professors, Medical Officers, Engineers, Group-A Officers, and Business Wholesalers under the Successful Persons category. The data is presented in terms of the number of Males, females, and those who preferred not to disclose their gender. This comprehensive analysis aims to provide insights into the gender representation within each sub-category and category, as well as comparisons between them.

### 3.3.1. Gender Distribution Among Students

Among the 482 Master Students surveyed, 203 (42.12%) were identified as Male. The Female representation among Master Students was higher, with 277 individuals (57.47%) identified as Female. Only 2 individuals (0.41%) preferred not to disclose their gender. Out of the 143 Research Scholars surveyed, 73 individuals (51.05%) were identified as Male. The Female representation among Research Scholars was slightly lower, with 69 individuals (48.25%) identified as Female. Only 1 individual (0.70%) preferred not to disclose their gender.

Combining the data for both Master Students and Research Scholars, the total number of Male students is 276 (44.16%), Female students are 346 (55.36%), and individuals who preferred not to disclose their gender are 3 (0.48%) out of 625 surveyed students.

### 3.3.2. Gender Distribution Among Successful Persons

Among the 151 Professors included in the survey, 82 individuals (54.30%) were identified as Male. The Female representation among Professors was slightly lower, with 69 individuals (45.70%) identified as Female. There are no individuals who prefer not to disclose their gender. Out of the 88 Medical Officers surveyed, 48

individuals (55.54%) were identified as Male. The Female representation among Medical Officers was slightly lower, with 40 individuals (45.45%) identified as Female. There are no individuals who prefer to disclose their gender. Among the 62 Engineers surveyed, 58 individuals (94.54%) were identified as Male. The Female representation among Engineers was significantly lower, with only 4 individuals (6.45%) identified as Female. There are no individuals who prefer not to disclose their gender.

Out of the 46 Group-A Officers surveyed, 31 individuals (67.39%) were identified as Male. The Female representation among Group-A Officers was 15 individuals (32.61%). There are no individuals who prefer not to disclose their gender. Among the 20 Business Wholesalers surveyed, 16 individuals (80%) were identified as Male. The Female representation among Business Wholesalers was significantly lower, with only 4 individuals (20%) identified as Female. There are no individuals who prefer not to disclose their gender.

Combining the data for all Successful Person categories, the total number of Male individuals is 235 (64.03%), Female individuals 132 (35.97%), and there were no individuals who preferred not to disclose their gender, out of 367 surveyed successful persons. The analysis of Table 3.2 provides essential insights into the gender distribution among various sub-categories of Students and Successful Persons. Overall, the data shows that Students, particularly master Students, have a higher representation of Female individuals, with 57.47% Female students and 42.12% Male students. This shows that among the younger generations in the general field of studies, gender doesn't play a significant role in educational enrolment.

However, Successful Persons, particularly Engineers and Business Wholesalers have a significantly higher representation of Male individuals, with 94.54% Male Engineers and 80% Male Business Wholesalers. Traditionally, engineering has been viewed as a male-dominated field, with deeply ingrained gender biases and sociocultural norms preventing women from accessing educational opportunities and career opportunities (Cheryan et al., 2017). This historical bias has left a lasting impact on gender representation in engineering. One significant factor

contributing to the underrepresentation of women in engineering is the presence of educational barriers. Research suggests that young girls and women may encounter discouragement or stereotypes that dissuade them from pursuing engineering-related coursework (Kvande, 2018). Moreover, there remains a gender gap in enrollment and retention in engineering programs at both undergraduate and graduate levels (Dabney et al., 2016).

The research on gender and entrepreneurship in Mizoram indicated that 84.7% of businesspeople in Mizoram were men and 15.3% were women (Lalhunthara, 2015), which is consistent with our findings of the underrepresentation of women in the business wholesale sector in Mizoram. The majority of the businesses in a Mizo patriarchal family are owned by the male head of the family on paper, if he is still living, according to field observations and interviews. However, women put in just as much effort as men to build their businesses.

### 3.3.3. Comparing Students and Successful Person Categories

The percentage of Male representation is higher in the Successful Person category (64.03%) compared to the students' category (44.16%). While the percentage of Female representation is higher in the student category (55.36%) compared to the Successful Person category (35.97%). Both categories have a negligible percentage of individuals who preferred not to disclose their gender, with 0.48% in Students and 0.31% in Successful Persons. Even so, the student numbers of individuals who opt for preferred not to say options are greater, indicating that Mizo society is arguably liberalizing.

Overall, this analysis of Gender highlights the disparities in gender representation across different categories, providing valuable information for understanding the demographics and dynamics of each group. There is unquestionably a gender underrepresentation among professionals in the majority of the field. The lowest percentage of female employees in these fields is in engineering and business, where 87% of employees are men. This demonstrates unequivocally

that female education during the recent decades was low. However, as we moved on to the student category of our younger generation, female involvement surged to the point where it outnumbered male participation in some categories.

### 3.4. Marital Status

Marital status is an important social component that can influence educational success and achievement. Understanding the connection between marital relationships and academic achievement is essential for educators, policymakers, and researchers to develop targeted interventions and support systems. Many studies have looked into the association between marital status and educational attainment. Zajacova and Hummer (2009) conducted a comprehensive analysis and found that being married was positively connected with a greater level of education. They reported that married individuals were more destined to have achieved higher academic levels. compared to their unmarried counterparts.

Marital status can also influence academic performance. A study by Chandra and Rask (2013) explored the association between marital status and college GPA. They found that married students tended to have lower GPAs compared to their unmarried peers. This could be attributed to the additional responsibilities and time commitments that come with marriage, impacting the academic focus and performance of married students.

Married students may face particular difficulties while they pursue their education. Jones (2011) explored the experiences of married students in higher education and identified several challenges, including balancing academic responsibilities with family obligations, financial strain due to combined household expenses, and limited time for social activities. These challenges can affect the well-being and academic success of married students.

Educational persistence, or the ability to persist and complete educational programs, can also be influenced by marital status. A study by Roksa and Potter (2011) examined the impact of marriage on college dropout rates. They found that

married students were more unlikely to continue college compared to their unmarried peers, indicating that marital status can affect educational persistence.

Acknowledging the consequences of marital status on educational outcomes is essential for developing targeted interventions to support married students in their educational pursuits. Providing resources such as financial aid, flexible scheduling options, and counselling services tailored to the needs of married students can contribute to their academic success. Additionally, policies and programs aimed at promoting work-life balance and reducing the financial burden on married students may further support their educational endeavours.

Table 3.3 presents marital status distribution among individuals belonging to two main categories: Students and Successful Persons. The table is further divided into sub-categories, including Master Students and Research Scholars under the Students category, and Professors, Medical Officers, Engineers, Group-A Officers, and Business Wholesalers under the Successful Persons category. The data is collected from a total of 992 individuals, and the marital status is classified into three categories: Married, Unmarried, and Divorced. This analysis aims to provide insights into the marital status distribution among these different groups.

**Table 3.3. Marital Status**

| Main Category | Sub- Category | Married | Unmarried | Divorced |
|---|---|---|---|---|
| STUDENTS | Master Students | 7 (1.45%) | 473 (98.13%) | 2 (0.41%) |
| | Research Scholars | 13 (3.20%) | 130 (90.91%) | - |
| | TOTAL | 20 (3.21%) | 603 (96.48%) | 2 (0.32%) |
| SUCCESSFUL PERSON | Professors | 117 (77.48%) | 31 (20.53%) | 3 (1.99%) |
| | Medical Officers | 41 (46.59%) | 45 (51.14%) | 2 (2.27%) |
| | Engineers | 47 (75.81%) | 15 (24.19%) | - |
| | Group-A Officers | 46 (100%) | - | - |
| | Business Wholesaler | 19 (95%) | - | 1 (5%) |
| | TOTAL | 270 (64.03%) | 91 (24.80%) | 6 (1.63%) |
| GRAND TOTAL | | 290 (32.18%) | 694 (69.96%) | 8 (0.81%) |

*Source: Field Survey, 2019-2022*

### 3.4.1. Marital Status among Students

Among the 482 Master Students surveyed, 7 individuals (1.45%) were reported as Married, 473 individuals (98.13%) were Unmarried, and 2 individuals (0.41%) were Divorced. Out of the 143 Research Scholars, 13 individuals (3.20%) were Married, 130 individuals (90.91%) were Unmarried, and no individuals were Divorced.

Combining the data for both Master Students and Research Scholars, the total number of Married individuals is 20 (44.16%), Unmarried individuals are 603 (96.48%), and Divorced individuals are 2 (0.32%) out of 625 surveyed students.

### 3.4.2. Marital Status Distribution among Successful Persons

Out of the 151 Professors included in the survey, 117 individuals (77.48%) were reported as Married, 31 individuals (20.53%) were Unmarried, and 3 individuals (1.99%) were Divorced. Among the 88 Medical Officers surveyed, 41 individuals (46.59%) were Married, 45 individuals (51.14%) were Unmarried, and 2 individuals (2.27%) were Divorced. Out of the 62 Engineers surveyed, 47 individuals (75.81%) were Married, 15 individuals (24.19%) were Unmarried, and no data was available for individuals who were Divorced. All 46 Group-A Officers (100%) included in the survey were reported as Married.

Among the 20 Business Wholesalers surveyed, 19 individuals (95%) were Married, and 1 individual (5%) was Divorced. No Unmarried individuals. Combining the data for all Successful Person categories, the total number of Married individuals is 270 (64.03%), Unmarried individuals are 91 (24.80%), and Divorced individuals are 6 (1.63%) out of 367 surveyed successful persons.

### 3.4.3. Overall Marital Status

Considering both main categories, the Grand Total indicates that out of 992 individuals surveyed Married individuals were 290 (32.18%), Unmarried individuals stood at 478 (69.96%) and 8 individuals were Divorced (0.81%)

Table 3.3 reveals several interesting observations about the marital status distribution across different categories. The majority of both Master Students (98.13%) and Research Scholars (90.91%) are reported as Unmarried. This is likely due to the young age of students, which generally corresponds to a lower likelihood of being married. The data shows that the percentage of Married individuals is higher among the Successful Person category compared to Students. Among Successful Persons, Professors have the highest percentage of Married individuals (77.48%), indicating that the professional stability and maturity associated with this occupation might contribute to higher marriage rates. The overall percentage of Divorced individuals is quite low (0.81%), lower than the state divorce rate of 4.08 % (census of India, 2011) suggesting that the surveyed population has a relatively stable marital status. All Group-A Officers were reported as Married, which might be related to the requirements or expectations of their profession or organization.

To conclude, Table 3.3. provides valuable information on the marital status distribution among Students and Successful Persons, offering insights into the trends within each category. The majority of students are Unmarried, while the percentage of Married individuals is higher among the Successful Person group. The overall percentage of Divorced individuals is relatively low.

### 3.5. Conclusion

To conclude the chapter, with a primary focus on age, gender, and marital status, this chapter has provided us with useful information regarding the study's demographic profile. Firstly, it is found that there is an almost two-decade age gap between the master student and the wholesaler. The generational inequalities in educational awareness and advancement over time have resulted in an increase in the average age of entry into school from the older generation to the younger generation. However, regardless of when a person entered school, the average age at which they entered a profession varies. Due to their prior employment, Group-A officers have the highest average entry age into their field. Secondly, Gender underrepresentation in the professional sector is undeniable. Engineering and business, where 87% of workers are men, have the least number of female employees in these areas. This shows unambiguously how poorly educated women have been in recent years. But as we got to the younger generation of students, female engagement soared to the point where it outnumbered male participation in higher education. Lastly, the majority of students are single, whereas the group of successful people has a higher proportion of married people. Individuals who have divorced are relatively few, much less than the state average.

However, it is essential to acknowledge that the data is based on a specific survey and might not be fully representative of the entire populace. Further research with a substantial and more diverse sample would be required to draw more conclusive and generalized insights. Additionally, efforts to promote diversity and inclusivity within these categories could be made based on the findings of this study.

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# CHAPTER-4

# EDUCATIONAL BACKGROUND

## 4.1. Introduction

This chapter focuses on a person's educational background, including their grades, performance, nature of the institution attended, and preferred medium of instruction. Education holds paramount importance in individual development and societal progress. It serves as the cornerstone of personal growth and the catalyst for economic and social advancement. Research and scholarly works underscore the significance of education in shaping lives and fostering positive outcomes.

Education, as highlighted by UNESCO, is instrumental in promoting lifelong learning and nurturing critical thinking skills. It equips individuals with the knowledge and competencies necessary for active participation in the globalized world, fostering a sense of empowerment and self-worth (UNESCO, 2015).

Moreover, studies such as those conducted by Hanushek and Woessmann (2008) reveal the profound economic impact of education. They emphasize the direct correlation between educational attainment and economic growth, illustrating how a well-educated populace is essential for driving innovation, increasing productivity, and reducing income inequality (Hanushek & Woessmann, 2008).

Furthermore, education plays a pivotal role in fostering social cohesion and inclusivity. According to Sir Michael Barber and Mona Mourshed (2007), education contributes to social harmony by breaking down barriers, promoting diversity, and instilling values of tolerance and mutual understanding. It serves as a powerful tool for addressing social disparities and promoting equity (Barber & Mourshed, 2007).

Education is undeniably a pivotal factor in shaping an individual's life success. It not only imparts knowledge but also instils essential skills, fosters personal growth, and opens doors to a world of opportunities. Studies underscore the lasting impact of early childhood education on an individual's life trajectory. They emphasize that quality early education programs equip individuals with cognitive

and socio-emotional skills crucial for future success, including higher earnings, better health outcomes, and reduced criminal involvement (Heckman & Kautz, 2012).

Moreover, research highlights the correlation between teacher quality, student achievement, and long-term success. It demonstrates that effective teachers not only enhance academic performance but also significantly increase students' income potential and likelihood of attending college (Chetty, Friedman, & Rockoff, 2014).

In conclusion, Education is a transforming force that shapes people, not just a way to gain knowledge, but also drives economic prosperity and fosters social harmony. It is a cornerstone of life's success, providing individuals with the tools to thrive economically, socially, and personally. The research provided underlines the global consensus on the profound importance of education in shaping a brighter future for individuals and societies alike.

### 4.2. Educational Performance

Educational performance is a crucial determinant of future success, as it shapes individuals' academic, career, and life outcomes. Academic performance in primary education lays the foundation for future educational attainment and career success. A longitudinal study by Nagy et al. (2015) followed children from kindergarten through young adulthood and found that early academic performance significantly predicted later educational attainment and employment outcomes. He further states that students who demonstrated strong academic skills in primary education were more likely to achieve higher levels of education and secure stable employment in adulthood.

Secondary education is also a critical stage that prepares students for higher education or the workforce. A study by Schneider (2016) examined the relationship between high school academic achievement and career opportunities. It revealed that high school students with better grades and academic records had more access to college education and were more likely to secure higher-paying jobs in the future.

Educational performance influences career and earnings and impacts various life outcomes. A study by Mirowsky and Ross (2003) investigated the long-term consequences of educational achievement on health and well-being. They found that higher levels of educational attainment were associated with better physical and mental health, increased life satisfaction, and overall well-being in adulthood.

Therefore, addressing disparities in educational performance is crucial for promoting future success and reducing societal inequalities. A study by Reardon (2011) examined educational achievement gaps between students from different socioeconomic backgrounds. It highlighted the importance of early intervention programs and equitable access to quality education to narrow achievement gaps and improve long-term outcomes for disadvantaged students.

The provided table, labelled "Table 4.1: Educational Performance in Different Standards," presents a comprehensive overview of educational performance across different sub-categories. The data encompasses a High Leaving Certificate (HSLC), Higher Secondary School Leaving Certificate (HSSLC), Bachelor of Arts (BA) or equivalent, Master of Arts (MA) or equivalent, and an overall average. These scores are categorized under Students and Successful Persons, focusing on Master Students, Research Scholars, Professors, Medical Officers, Engineers, Group-A Officers, and Business Wholesalers. This analysis aims to examine and interpret the table's data, highlighting key trends and insights.

**Table 4.1. Educational Performance in different standards** ***(figures in Percentage)***

| Main Category | Sub- Category | HSLC | HSSLC | Under Graduate | Post Graduate | overall Average |
|---|---|---|---|---|---|---|
| STUDENTS | Master Students | 59.69 | 63.72 | 68.21 | - | 63.87 |
| | Research Scholars | 58.43 | 64.14 | 68.29 | 69.25 | 65.03 |
| | AVERAGE | 56.06 | 63.94 | 68.25 | 69.25 | 64.45 |
| SUCCESSFUL PERSON | Professors | 51.2 | 65.27 | 67.13 | 66.85 | 62.61 |
| | Medical Officers | 68.94 | 72.81 | 68.34 | 66.82 | 69.23 |
| | Engineers | 65.24 | 73.58 | 68.55 | 69.24 | 69.15 |
| | Group-A Officers | 62.17 | 64.80 | 64.68 | 68.52 | 65.04 |
| | Business Wholesaler | 56.31 | 59.85 | 65.38 | - | 60.51 |
| | AVERAGE | 60.77 | 67.26 | 66.82 | 67.86 | 65.31 |
| GRAND AVERAGE | | 57.46 | 63.50 | 66.43 | 68.32 | 63.33 |

*Source: Field Survey 2019-2022*

### 4.2.1. Students' Educational Performance

The "Students" category comprises two sub-categories: Master Students and Research Scholars. Master Students exhibit the highest educational performance across all levels, with an average score of 63.87%. On the other hand, Research Scholars, while still achieving commendable results, have a slightly lower overall average of 65.03%. It is worth noting that the HSLC sub-category has the lowest performance among students, with an average of 56.06%.

The transition from HSLC to HSSLC seems to have a positive impact on student's performance, as the percentage scores show a consistent upward trend from HSSLC to Post Graduate. This trend could indicate that higher education levels encourage better academic achievements among students.

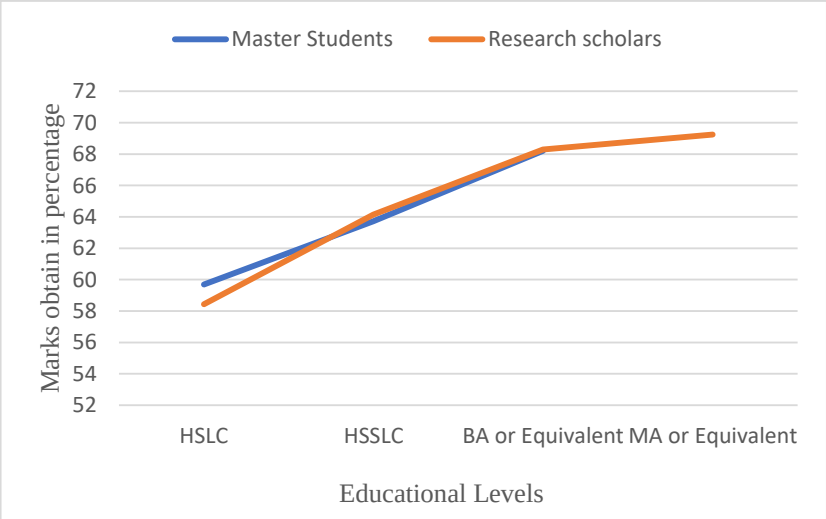


Figure 4.1. Trend lines of Educational Performance

### 4.2.2. T-Test for comparing means

Table 4.2 presents a comparative analysis of the average marks obtained by Master Students and Research Scholars. The table includes key statistical measures such as N (sample size), Mean (average), Standard Deviation (a measure of data

dispersion), Standard Error Mean (the standard deviation of the sample mean), T Value (a measure of the difference between the means), and the significance level (p-value). This analysis aims to examine the significance of the difference in average marks between the two groups and provide insights into the educational performance of Master Students and Research Scholars.

**Table 4.2. Differences between Average marks obtained by Master Students and Research Scholars**

| Category | N | Mean | Std. Deviation | Std. Error Mean | T Value | Sig. (2-Tailed) |
|---|---|---|---|---|---|---|
| **Master Students** | 482 | 63.87 | 10.50 | 1.00186 | .891 | 0.374* |
| **Research Scholars** | 143 | 65.03 | 8.83 | .83895 | | |

**** Not Significant at 0.05 level (two-tailed)***

The table (Table 4.2) shows that the sample size for Master Students is N=482, while for Research Scholars, it is N=143. The Mean, which represents the average marks obtained, for Master Students is 63.87, while for Research Scholars, it is slightly higher at 65.03. These means give us an initial indication that Research Scholars might have a slightly better average performance compared to Master Students. However, to understand the significance of this difference, we need to examine the Standard Deviation and T Value.

The Standard Deviation for Master Students is 10.50758, whereas for Research Scholars, it is 8.83889. The lower standard deviation for Research Scholars implies that their marks are less dispersed around the mean, suggesting a higher level of consistency in their performance compared to Master Students. On the other hand, the higher standard deviation for Master Students indicates more variability in their marks, with some students scoring significantly higher or lower than the mean.

To assess the significance of the difference in average marks between the two groups, a T-test is performed. The T Value, calculated as 0.891, is the ratio of the difference between the means to the variability in the data. The T Value provides a measure of the strength of the evidence against the null hypothesis (i.e., there is no

significant difference between the two groups). A higher T Value indicates a more substantial difference between the means.

The significance level, represented as Sig. (2-Tailed), is a p-value that assesses the probability of observing the given difference in means by chance. In this case, the p-value is 0.374. Typically, if the p-value is less than a predetermined significance level (often set at 0.05 or 0.01), it is considered statistically significant, indicating that the observed difference is not likely to be due to random chance. However, in this scenario, the p-value is higher than the standard significance levels, suggesting that the difference in average marks between Master Students and Research Scholars is not statistically significant.

Based on the statistical analysis, the difference in average marks between Master Students and Research Scholars is not significant. Both groups have similar average performance levels, with Research Scholars showing slightly higher marks, albeit without statistical significance.

The relatively large sample sizes for both groups lend credibility to the results. The higher standard deviation for Master Students indicates that they might have a more diverse range of academic abilities, leading to varying performance levels. In contrast, the lower standard deviation for Research Scholars suggests a more homogenous group in terms of academic achievements.

### 4.2.3. Educational Performance of Successful Persons

Table 4.1. shows that the "Successful Persons" category comprises several sub-categories, such as Professors, medical Officers, Engineers, Group-A Officers, and Business Wholesalers. Among these, Medical Officers achieve the highest overall average percentage (69.23%), followed closely by Engineers (69.15%). Business Wholesalers, however, exhibit the lowest average performance, reaching 60.51%.

Interestingly, the sub-category of Professors showcases the most diverse educational performance. While they score relatively low in the HSLC (51.2%), they improve significantly throughout their educational journey, reaching an average of 66.85% in Post Graduate.

When comparing the average percentage scores across all categories, it becomes evident that the highest overall average belongs to Post Graduate (68.32%), followed by HSSLC (63.50%) and Under Graduate (66.43%). The lowest overall average can be found in HSLC, with a score of 57.46%. This trend indicates that educational performance generally improves as individuals progress to higher levels of education.

Furthermore, when considering the performance averages of students and successful persons, successful persons tend to have slightly higher average scores (65.31%) compared to students (64.45%). This might be attributed to the fact that successful persons have already excelled in their chosen fields, implying a higher level of commitment and dedication towards their studies.

### 4.2.4. ANOVA for comparing means

The ANOVA table shows that the mean mark for professors is 62.6093, the mean mark for medical doctors is 69.2273, the mean mark for engineers is 69.1452, the mean mark for group A officers is 65.0413, and the mean mark for business wholesalers is 60.51. The F-statistic is 21.249, which is significant at the $p < .001$ level. This means that we can be confident that the difference between the mean marks is not due to chance.

| Table 4.3. ANOVA for Successful persons | | | | | |
|---|---|---|---|---|---|
| | **Sum of Squares** | **df** | **Mean Square** | **F** | **Sig.** |
| Between Groups | 3815.804 | 4 | 953.951 | 21.249 | .000 |
| Within Groups | 16251.545 | 362 | 44.894 | | |
| Total | 20067.349 | 366 | | | |

The Levene test for homogeneity of variances was not significant, which means that we can assume that the variances of the five groups are equal. This means that we can use the F-statistic to compare the mean marks of the groups.

The robust tests of equality of means also showed that there is a significant difference between the mean marks of the five groups. The Welch test statistic was 20.558, which is significant at the $p < .001$ level. The Brown-Forsythe test statistic was 22.331, which is also significant at the $p < .001$ level.

These results suggest that there is a significant difference between the mean marks of the five groups. The Turkey HSD test is conducted to identify which groups are different from each other as shown in table 4.4.

| Table 4.4. Turkey HSD test for successful person | | |
|---|---|---|
| **Group** | **Mean Difference** | **p-value** |
| Medical Doctors - Professors | 6.61797 | 0 |
| Engineers - Professors | 6.5358 | 0 |
| Engineers - Medical Doctors | 0.08217 | 0.934 |
| Group A Officers - Professors | 2.43167 | 0.001 |
| Group A Officers - Medical Doctors | 1.8255 | 0.015 |
| Group A Officers - Engineers | 1.75363 | 0.02 |
| Business Wholesalers - Professors | 12.9807 | 0 |
| Business Wholesalers - Medical Doctors | 12.36853 | 0 |
| Business Wholesalers - Engineers | 12.29666 | 0 |
| Business Wholesalers - Group A Officers | 9.54903 | 0 |

The Tukey HSD test results show that there are significant differences between the mean marks of the five groups. The mean marks for medical doctors, engineers, and business wholesalers are all significantly higher than the mean marks for professors. The mean mark for group A officers is also significantly higher than the mean mark for professors, but the difference is not as large as the difference between the other three groups and professors.

The results of the Tukey HSD test suggest that there are four groups of significantly different mean marks: Medical doctors, Engineers, Business wholesalers, and Group A officers. The mean mark for professors is significantly lower than the mean mark for any of these four groups.

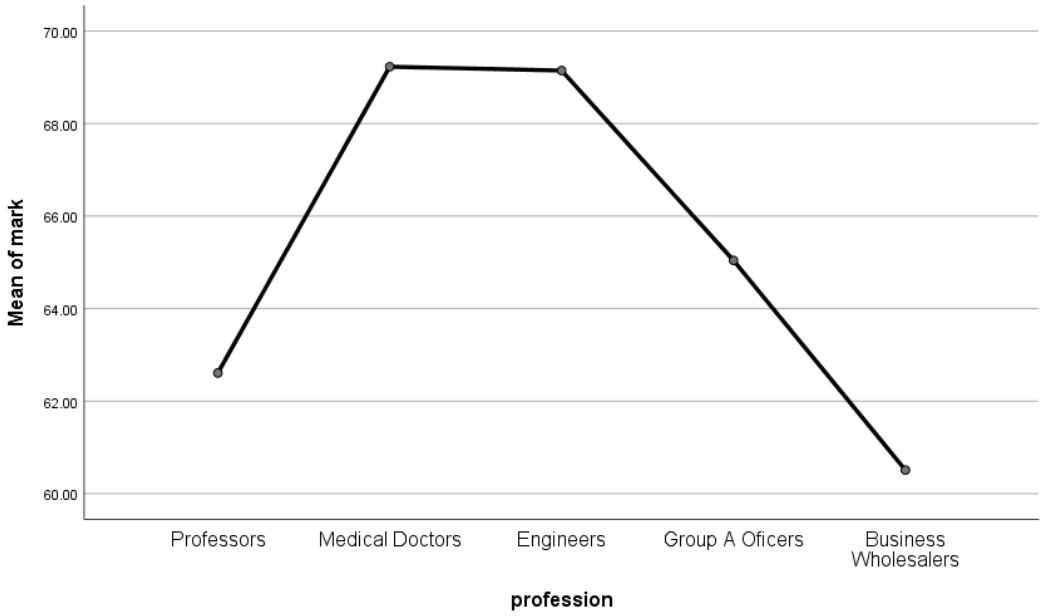


Figure 4.2. Scree plot for turkey HSD test

To conclude, by utilising a t-test to compare the means of the average grades earned by master's and research students, we discover that there is no statistically significant difference between their average marks. However, using ANOVA, it is found that the successful individuals' marks differ by a statistically significant

amount. The highest average marks, which reflect their high profession-requirement marks, were earned by medical officers and engineers. Conversely, professors and business wholesalers don't perform as well early in their careers but excel as they advance in higher education. Since we are comparing younger master students in general with successful high achiever individuals of the older generations, there aren't many generational average mark differences between pupils and successful people.

Academic achievement in primary education influences educational attainment and employment opportunities in adulthood. Higher education is associated with higher earning potential and improved life outcomes. Addressing disparities in educational performance is vital for promoting equal opportunities and reducing social inequalities. Overall, this analysis highlights the significance of continuous efforts to enhance educational standards and encourage individuals to pursue higher levels of education, ultimately contributing to the overall growth and development of society.

Educational policies and interventions that focus on improving academic performance at all levels, ensuring equitable access to quality education, and supporting students' individual learning needs are crucial for fostering future success. By investing in education and providing a strong educational foundation, societies can enhance the prospects for individuals to achieve their full potential and lead fulfilling and successful lives.

### 4.3. Nature of Institution Attended

The nature of the school a child attends, whether private, public, or church-run, can have a significant impact on their education and success. Several studies have examined the relationship between school type and student outcomes, with mixed results.

Studies have found that private schools outperform public schools on standardized tests and other measures of academic achievement. For example, a

study by the National Centre for Education Statistics (NCES) found that private school students scored significantly higher than public school students on the 2015 National Assessment of Educational Progress (NAEP) in all subjects and grade levels.

In India, studies found significant differences in mathematics achievement between public and private schools, with private schools generally outperforming public schools. The research suggested that factors such as teacher quality and infrastructure played a role in these differences (Das & Zajonc 2010).

Kingdon's research indicated that private schools in urban India were perceived to provide a higher quality of education compared to public schools. However, there was also evidence of inefficiencies in both public and private schools (Kingdon 1996). Reports from the NCERT and ASER also highlighted issues such as disparities in learning outcomes, infrastructure deficiencies in public schools, and the growing popularity of private schools in India.

### 4.3.1. Nature of Institution attended and levels of education

The table 4.5. provides the percentage distribution of students and successful persons in various types of educational institutions (Private, Government, NGO/Church-run) at different levels of education.

**Table 4.5. Nature of Institution attended in different levels of education**

| Level of education | Private (%) | Government (%) | NGO/Church-run (%) |
|---|---|---|---|
| Primary | 46.12 | 44.54 | 9.34 |
| Middle | 46.97 | 43.54 | 9.50 |
| High school | 33.73 | 56.29 | 9.98 |
| Higher Secondary | 25.86 | 59.67 | 14.47 |
| Under Graduate | 10.08 | 86.74 | 3.19 |
| Post Graduate | 1.84 | 83.03 | 15.14 |
| Total | 27.43 | 62.30 | 10.27 |

*Source: Field Survey 2019-2022*

Private institutions are the most popular choice among students at the primary level, with 46.12% of students attending them. Government institutions follow closely, with 44.54% of students. NGO/Church-run institutions account for 9.34% of students at this level. This suggests that primary education in private institutions and government institutions is relatively more prevalent than in NGO/Church-run institutions. The percentage distribution is relatively balanced between private and government schools.

Private institutions continue to be a popular choice at the middle level, with 46.97% of students. Government institutions have 43.54% of students. NGO/Church-run institutions account for 9.50% of students. Similar to the primary level, private institutions are popular at the middle level. However, the difference between private and government institutions is slightly larger here.

At the high school level, there is a significant shift. Private institutions have 33.73% of students, while government institutions have a higher share at 56.29%. NGO/Church-run institutions account for 9.98% of students at this level. Government institutions dominate the high school level, with a considerably higher percentage of students compared to private institutions.

The trend of government institutions having a higher share continues at the higher secondary level, with 59.67% of students. Private institutions have 25.86% of students. NGO/Church-run institutions account for 14.47% of students. Government institutions are the primary choice for students at the higher secondary level, with a significant majority opting for them.

At the Under Graduate level, government institutions are overwhelmingly dominant, with 86.74% of students. Private institutions have a relatively small share, with only 10.08% of students. NGO/Church-run institutions account for 3.19% of students. Government institutions are the preferred choice for higher education at the Under Graduate level, with a substantial majority of students attending them.

At the Post Graduate level, government institutions still dominate, with 83.03% of students. Private institutions have a smaller share, with only 1.84% of students. NGO/Church-run institutions account for 15.14% of students. Government institutions continue to be the primary choice for postgraduate education.

The table illustrates a clear shift in the preference for educational institutions as students' progress through different levels of education. Private institutions are more popular at the primary and middle levels, but government institutions become increasingly dominant at the high school, higher secondary, and higher education levels. NGO/Church-run institutions have a relatively consistent but smaller presence across all levels of education. This analysis suggests that government institutions play a significant role in secondary and higher education.

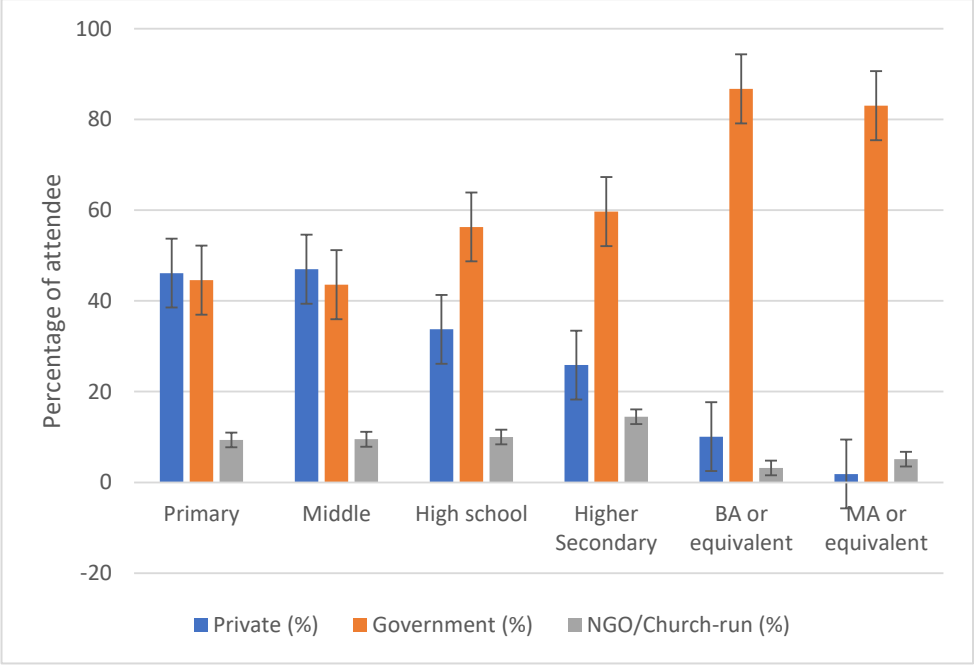


Figure 4.3. Bar Graph showing the percentage of students and successful persons attending various types of institutions in different levels of education

### 4.3.2. Nature of Institution attended and types of profession

The table 4.6. show the percentage of students and successful people attending different types of institutions. The table is divided into different categories, each representing a specific group of individuals, including Master's students, Research Scholars, Professors, Medical Officers, Engineers, Group-A officers, and Business Wholesalers. There are three types of educational institutions: "Private," "Government," and "NGO/Church-run." The numbers in the table represent the percentage of individuals in each category attending each type of institution.

Table 4.6. shows that for Master's students, 35.7% attend private institutions, 52.3% attend government institutions, and 12.1% attend NGO/Church-run institutions. Among Research Scholars, 32.1% attend private institutions, 61.3% attend government institutions, and 6.6% attend NGO/Church-run institutions. In the category of Professors, 22.2% attended private institutions, 73.5% attended government institutions, and 4.3% attended NGO/Church-run institutions. Medical Officers have 27.3% attending private institutions, 61.2% attending government institutions, and 11.6% attending NGO/Church-run institutions. Engineers have 25.3% attending private institutions, 64.5% attending government institutions, and 10.2% attending NGO/Church-run institutions. Among Group-A Officers, 12.3% attended private institutions, 80.4% attended government institutions, and 7.2% attended NGO/Church-run institutions. Business Wholesalers have 21.5% attending private institutions, 71.4% attending government institutions, and 7.2% attending NGO/Church-run institutions. Overall, 25.2% of individuals attend private institutions, 66.4% attend government institutions, and 8.5% attend NGO/Church-run institutions.

**Table 4.6. Nature of Institution attended by students and successful persons**

***(figure in percentage)***

| Main Category | Sub- Category | Private | Government | NGO/Church-run |
|---|---|---|---|---|
| STUDENTS | Master's students | 35.7 | 52.3 | 12.1 |
| | Research Scholars | 32.1 | 61.3 | 6.6 |
| SUCCESSFUL PERSON | Professors | 22.2 | 73.5 | 4.3 |
| | Medical officers | 27.3 | 61.2 | 11.6 |
| | Engineers | 25.3 | 64.5 | 10.2 |
| | Group-A officers | 12.3 | 80.4 | 7.2 |
| | Business wholesalers | 21.5 | 71.4 | 7.2 |
| Total | | 25.2 | 66.4 | 8.5 |

*Source: Field Survey, 2019-2022*

Figure 4.4. illustrates the varying preferences for types of educational institutions across different categories of individuals. Government institutions are notably prominent among Research Scholars, Professors, Medical Officers, Engineers, and Group-A Officers, with the majority attending such institutions. Private institutions are favoured by Master's students, although government institutions also have a significant presence in this category. NGO/Church-run institutions have a relatively smaller presence across all categories but are most notable among Medical Officers and Business Wholesalers.

Government institutions play a substantial role in higher education and are especially prominent among those who later become Professors, Medical Officers, Engineers, and Group-A Officers. NGO/Church-run institutions have a smaller but noticeable presence, with some individuals in various categories attending them. These findings provide insights into the educational choices made by different

groups of individuals and the distribution of institutions attended across categories and types of institutions.

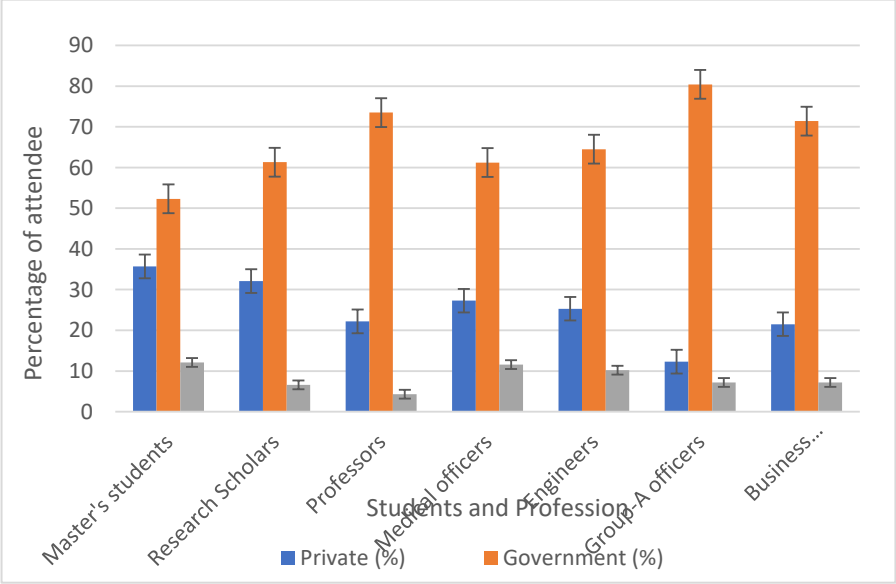


Figure 4.4. Bar Graph showing the percentage of students and successful persons attending various types of institutions.

To sum up, at the primary and middle school levels, private schools are more popular, however at the high school, higher secondary, and higher levels, government institutions gain popularity. This is mostly because higher education has such large startup and operating costs for which the government manages most of them. When successful people and students are compared regarding their preferences for institutions, it becomes clear that students are more likely to attend private institutions, which demonstrates the rising popularity of private schools in the study area over the past few years. Among the successful persons, medical doctors and engineers make up the majority of successful people who attend private schools. Group A officers have the lowest percentage of people who attend private schools.

### 4.4. Medium of Instruction (MOI)

The medium of instruction (MOI) is a complex and contentious issue in India, with a long history of debate and discussion. The country's multilingual landscape, with over 22 official languages and hundreds of dialects, poses a unique challenge to the education system. The choice of MOI can have a significant impact on student's educational achievement and success, as well as their social and economic opportunities.

The choice of the medium of instruction, particularly when it aligns with the language spoken at home, can positively affect students' language proficiency and comprehension skills, which are foundational for educational achievement (Cummins, 1981). The medium of instruction can influence students' cognitive development. Research has shown that students who are taught in a language they are most comfortable with tend to perform better academically (Thomas & Collier, 2002). A language barrier resulting from the choice of the medium of instruction can hinder students' access to content knowledge and subject-specific learning, which can impact educational achievement (Baker, 2011).

When students are taught in a medium that reflects their cultural and linguistic background, the content becomes more culturally relevant, which can enhance motivation and engagement, positively affecting educational achievement (Gay, 2010).

Additionally, Bilingual and multilingual education programs can support educational achievement by fostering proficiency in multiple languages and promoting cross-cultural understanding (García & Sylvan 2011). Education policies and practices related to the medium of instruction can have a significant impact on educational outcomes. The successful implementation of language policies is crucial (Tollefson, 1995).

English is the dominant language of higher education in India. The use of English as a MOI has several advantages, including providing access to global knowledge and opportunities and enhancing employability. However, the use of

English as a MOI also has several disadvantages, including creating a barrier to access for students from disadvantaged backgrounds and leading to a loss of cultural identity and self-esteem for students from minority language groups (Galloway, 2021).

This unpublished thesis of Lallianpuii examines the policy on MOI in Mizoram, the impact of MOI on academic achievement, and the perceptions of stakeholders. The paper finds that there is a lack of consensus on the best MOI for students in Mizoram and that the current policy of trilingual education (English, Mizo, and Hindi) is not being implemented effectively. The paper also finds that students who are taught in their mother tongue tend to perform better academically than those who are taught in a second language (Lallianpuii, 2017).

The literature on MOI in Mizoram is limited, but it is growing. There is a need for more research on this important issue, to inform policymakers and educators.

### 4.4.1. Types of Professions and Medium of Instruction

The table 4.6. displays the percentage of individuals in various categories who attended institutions with different mediums of instruction (English, Mizo, Hindi) from primary to high school. The table includes several categories of individuals, including Master's students, Research Scholars, Professors, Medical officers, Engineers, Group-A officers, and Business wholesalers. The percentages in each cell represent the proportion of individuals within each category who attended institutions with the specified medium of Instruction.

**Table 4.7. Medium of Instruction in the institution attended from primary to high school** ***(figures in Percentage)***

| Main Category | Category | English | Mizo | Hindi |
|---|---|---|---|---|
| STUDENTS | Master's students | 75.38 | 23.38 | 1.24 |
| | Research Scholars | 60.34 | 39.1 | 1.40 |
| SUCCESSFUL PERSON | Professors | 48.34 | 51.66 | 0 |
| | Medical officers | 75.38 | 24.62 | 0 |
| | Engineers | 65.05 | 34.95 | 0 |
| | Group-A officers | 63.77 | 36.23 | 0 |
| | Business wholesalers | 86.67 | 13.33 | 0 |
| Total | | 67.85 | 31.72 | 0.43 |

*Source: Field Survey, 2019-2022*

In the table 4.7. the level of education is only up to high school standards because in higher and above standards, English is a compulsory medium of instruction in Mizoram except in those Hindi training centres and Mizo literature studies. The table shows that across almost all categories, a significant percentage of individuals attended institutions with English as the medium of education (Master's students: 75.38%, Research Scholars: 60.34%, Professors: 48.34%, Medical officers: 75.38%, Engineers: 65.05%, Group-A officers: 63.77%, Business wholesalers: 86.67%). This suggests that English is widely used as a medium of instruction, especially in higher education.

Mizo is prominent as a medium of education among professors (51.66%) indicating its regional significance, likely in the context of Mizoram. Hindi, on the other hand, is rarely chosen as the medium of instruction, with a minimal presence (Master's students: 1.24%, Research Scholars: 1.40%). There are no Professors, Medical officers, Engineers, Group-A officers, or Business wholesalers who attended

Hindi-medium institutions. This suggests that Hindi-medium education is absent among individuals of older age in these categories. It is observed from the interview that Hindi was usually taught as a single subject.

It's interesting to note that in categories like Professors and Research Scholars, the choice of the medium of education seems more evenly distributed between English and Mizo (Professors - English: 48.34%, Mizo: 51.66%; Research Scholars - English: 60.34%, Mizo: 39.19%), possibly indicating a balance between academic and regional preferences. Medical officers (English: 75.38%) and Engineers (English: 65.05%) have a higher proportion of individuals who attended institutions with English as the medium of instruction, which might be influenced by the need for standardized scientific and technical knowledge. In the "Total" row, it's evident that English is the dominant medium of education (67.85%), followed by Mizo (31.72%). Hindi has the lowest overall percentage (0.43%), indicating that it is less commonly chosen as the medium of instruction in the sample.

In summary, this table provides insights into the choice of the medium of education among different categories of individuals, highlighting the dominance of English and the regional significance of Mizo. It also suggests that Hindi is less commonly chosen as a medium of education among the mentioned categories. The reasons for these choices could be influenced by factors such as regional context, career aspirations, and access to educational resources.

### 4.4.2. Levels of Education and Medium of Instruction

Table 4.8, shows the levels of education (Primary, Middle, and High School) and the respective percentages of individuals who received their education in English, Mizo, and Hindi as the medium of instruction. The table reveals a gradual transition towards English as the dominant medium of instruction as individuals progress from Primary to High School.

| Table 4.8. Levels of Education and Medium of Instruction | | | |
|---|---|---|---|
| **Level of education** | **English** | **Mizo** | **Hindi** |
| Primary | 62.65 | 36.69 | 0.66 |
| Middle | 66.16 | 33.53 | 0.31 |
| High school | 74.75 | 24.94 | 0.31 |

*Source: Field Survey, 2019-2022*

At the Primary level, a majority of individuals received education in English (62.65%), followed by Mizo (36.69%), with Hindi having a very minimal presence (0.66%). In the Middle level, the percentage of individuals educated in English slightly increases (66.16%), while the percentage of those educated in Mizo decreases. Hindi remains a minority choice (0.31%). At the High School level, English emerges as the predominant medium of instruction (74.75%), with Mizo having a significantly lower percentage (24.94%) and Hindi still representing a very small fraction (0.31%).

The shift towards English as the primary medium of instruction in High School is particularly notable. This suggests that many students and their families perceive English as essential for higher education and better career prospects, which could explain the higher preference for English at this level.

Mizo maintains a significant presence in all levels of education, especially at the Primary level. This likely reflects the importance of preserving regional culture and language in the early stages of education. Hindi remains a minority choice across all levels of education, indicating that it is less commonly chosen as a medium of instruction in the sample population. This could be due to regional and cultural factors, as well as the perception of English as more advantageous for future opportunities.

Table 4.8. shows a shift in the medium of instruction from regional languages like Mizo to English as individuals progress through their education levels, with

Hindi being a less common choice throughout. This transition likely reflects the perceived importance of English in achieving higher educational attainment and better career prospects. The regional significance of Mizo is evident, especially at the Primary level, reflecting a commitment to preserving cultural and linguistic identity at the early stages of education.

### 4.5. Conclusion

To conclude this chapter, it is discovered that the analysed educational variables, such as performance, the type of institution attended, and the medium of instruction, have changed over time. First off, the educational performance of the older generation of high achievers i.e., successful individuals is comparable to that of the general population of master's and research scholar students. Which signifies the increasing average mark obtained from older to younger generations. Second, private schools are more well-liked by younger students than by successful people, illustrating the rising appeal of private institutions over the ages. lastly, the percentage difference between the older generation of successful people and the younger generation of students who are attending schools where English is the medium of instruction shows that there has been a shift in the education system from the local language Mizo to English.

Moreover, there is a significant difference among the successful persons in their educational background. Among the successful persons, medical doctors being the highest attendee of private institutions and receiving most of their educational instruction in English, have the highest performance in education. It is followed by engineers and Group-A Officers. Despite the findings of other research about the positive impact of instruction in the local language mentioned before in the professional fields such as medical doctors and engineers, it might be better to get instructions in English as most of the learning activities and terminologies in these professions are in the English language. The same logical explanation cannot be applied to the other remaining professions because of the inconsistency in the data for example, Business wholesaler attended most of their education in government

institutions receiving their educational instruction in the English language yet they have the lowest performance in their education.

Therefore, it is important to conduct extensive research on the topic of the importance of the medium of instruction in the local language and English language. This is because the study area i.e., Mizoram which is a tribal area, has a very different social, cultural, psychological, technological, political and economic environment compared to the other areas where these types of research have been generally conducted.

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# CHAPTER-5

# SOCIO-SPATIAL BACKGROUND

## 5.1. Introduction

This chapter deals with students' and successful persons' social and spatial background analysis. The social background includes the social characteristics of the students and successful persons during their time of education such as family structure, Parent's Occupation, Parent's education, family income and Parent's marital status. Whereas, the spatial background refers to their place of origin. The chapter also includes the analysis and identification of the socio-spatial status developed by using statistical techniques based on 10 social and 6 spatial variables.

## 5.2. Social Background

Social background is a broad concept that encompasses a wide range of factors, including socioeconomic status (SES), race and ethnicity, parental education, and family structure. Research has shown that social background has a significant influence on educational achievement and success.

The Coleman Report, also known as Equality of Educational Opportunity, was a landmark study published in 1966 that examined the relationship between school resources and student achievement. The study found that school resources, such as spending per pupil and teacher qualifications, had a relatively small impact on student achievement. Instead, the study found that student background factors, such as socioeconomic status and race, had a much larger impact on student achievement. The Coleman Report's findings were controversial at the time, but they have since become widely accepted by researchers. The study's findings have had a significant impact on educational policy in the United States, leading to a focus on reducing the achievement gap between students from different backgrounds.

In India, Social class and ethnicity plays important role in the social and educational environment of a person. In her book "Education and Inequality in India: A Classroom View," Majumdar examines how social class impinges on the educational system, educational processes, and educational outcomes. She draws on original data collected in the two states of Andhra Pradesh and West Bengal to show how social class shapes the everyday experiences of students, teachers, and parents. Her findings suggest that the Indian education system is deeply stratified along class lines. Students from lower-class backgrounds are more likely to attend under-resourced schools with less experienced and qualified teachers. They are also more likely to be stereotyped and treated unfairly by their teachers and peers. As a result, students from lower-class backgrounds are more likely to struggle academically and drop out of school early (Majumdar, 2011).

Social background has a significant influence on educational achievement and success. Students from lower SES families, students of colour, and students from single-parent families or families with low levels of parental involvement are more likely to struggle academically and drop out of school early. Policymakers and educators need to be aware of the influence of social background on educational achievement and success to develop effective interventions to support all students regardless of their socioeconomic background. These interventions could include providing additional resources to low-income schools, reducing discrimination in the classroom, increasing parental involvement and providing economic aids to Student who come from economically weaker section of the society.

### 5.2.1. Family Structure

The study "When Bigger Is Not Better: Family Size, Parental Resources, and Children's Educational Performance" by Douglas B. Downey (1995) found that family size hurts children's educational performance. This is because parents have a finite number of resources (time, energy, money, etc.) and these resources are diluted among children as family size increases which ultimately leads to deficiency in critical resources which impact their life course.

Family structure also influences the age of marriage for girls in India and its subsequent effects on their educational attainment (Desai & Andrist 2010). The prevalence of child labour in urban India can also have adverse effects on the educational opportunities and outcomes of working children. The challenges faced by these children in balancing work and school, often lead to lower levels of educational attainment and reduced prospects for academic Achievement and success (Edmonds et al. 2009).

**Table 5.1. Family Structure**

| Category | Sub- Category | Size of the Family | Number of Siblings |
|---|---|---|---|
| STUDENTS | Master's students | 5.78 | 3.49 |
| | Research Scholars | 6.99 | 4.16 |
| SUCCESSFUL PERSONS | Professors | 7.03 | 4.88 |
| | Medical officers | 6.32 | 4.12 |
| | Engineers | 7.21 | 4.93 |
| | Group-A officers | 6.52 | 4.53 |
| | Business wholesalers | 7.32 | 4.2 |
| Total | | 6.74 | 4.33 |

*Source: field survey 2019-2022*

Table 5.1 provides valuable insights into the family structures among different professional categories, with two key metrics: "Size of the Family" and "Number of Siblings." These metrics offer a glimpse into the personal lives and family demographics of individuals in these professions.

In terms of the "Size of the Family," the table reveals variations across professional categories. Business wholesalers have the largest average family size at 7.32, suggesting that individuals in this category tend to have larger families. On the

other hand, Master's students have the smallest average family size, standing at 5.78, indicating that those of the younger generation tend to have smaller families on average. The "Total" row demonstrates that the overall average family size across all professional categories is 6.74, providing a comprehensive view of the combined family sizes.

Regarding the "Number of Siblings," the data shows a similar pattern of diversity among the professional categories. Engineers have the highest average number of siblings, with an average of 4.93, indicating that they tend to come from families with a relatively larger number of siblings. Conversely, Master's students have the lowest average number of siblings, with only 3.49 on average. This suggests that as family size decreases, sibling size also decreases. The "Total" row reflects an overall average of 4.33 siblings across all professional categories.

In summary, this table highlights the diversity in family structures among individuals in different professional fields. It suggests that family size and the number of siblings can vary significantly across these categories. Business wholesalers and engineers tend to have larger families and more siblings, whereas Master's students who are younger generation have smaller families and fewer siblings on average.

### 5.2.2. Parents' Education

The impact of parental education on children's educational achievement is mediated by a variety of factors, including the quality of the home environment, the child's motivation to learn, and the child's access to educational resources. The level of education attained by parents is highlighted as a crucial factor influencing children's attainments. Higher levels of parental education are associated with improved educational and economic outcomes for children (Wolfe et al. 1995). Parents with higher levels of education are more likely to have higher educational expectations for their children. They may encourage and support their children in

pursuing higher levels of education, such as college or advanced degrees (Becker, 1993).

Parental education has a significant impact on certain subjects such as mathematics. Students with more educated parents tend to perform better in mathematics and vice versa (Das & Zejonc 2010).

Table 5.2 provides information about the education levels of fathers in various professions. The data is presented in percentages and is grouped by different categories of professionals. The table lists several categories of professionals, including Master's students, Research Scholars, Professors, Medical officers, Engineers, Group-A officers, and Business wholesalers. The table presents the percentage of fathers in each category with different levels of education. These levels range from a Professional degree/Ph.D. to Illiterate.

The majority of fathers of Master's Students have Graduate and Post Graduate degrees (28.63%) and High School Leaving Certificates (26.35%). Similar to Master's students, Research Scholars also have a significant percentage of fathers with Graduate and Post Graduate degrees (24.48%) and High School Leaving Certificates (25.17%).

**Table 5.2. Education of Parents (Fathers in %)**

| Sub-Category | Professional degree/Ph. D | Graduate and Post Graduate | Higher School Leaving Certificate | High School Leaving Certificate | Middle School Leaving Certificate | Primary School Leaving Certificate | Illiterate |
|---|---|---|---|---|---|---|---|
| Master's students | 5.39 | 28.63 | 7.47 | 26.35 | 18.26 | 8.71 | 5.19 |
| Research Scholars | 6.99 | 24.48 | 12.59 | 25.17 | 19.58 | 8.39 | 2.8 |
| Professors | 3.31 | 28.48 | 12.95 | 21.19 | 13.91 | 17.88 | 2.28 |
| Medical officers | 7.95 | 45.45 | 22.73 | 15.91 | 3.41 | 3.41 | 1.14 |
| Engineers | 1.61 | 37.1 | 19.35 | 3.23 | 20.97 | 17.74 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Group-A officers | 6.52 | 36.96 | 8.7 | 15.22 | 10.87 | 21.74 | 0 |
| Business wholesalers | 10 | 25 | 5 | 40 | 10 | 10 | 0 |
| Total | 5.97 | 32.30 | 12.68 | 21.01 | 13.86 | 12.55 | 1.63 |

*Source: Field Survey 2019-2022*

A notable percentage of professors have Middle School Leaving Certificates (17.88%) and Higher School Leaving Certificates (12.95%). The highest proportion of fathers of Medical Officers have Graduate and Post Graduate degrees (45.45%) and Higher School Leaving Certificates (22.73%). Engineers' fathers are diverse in their educational backgrounds, with a significant percentage having Graduate and Post Graduate degrees (37.1%), but also a substantial percentage with Middle School Leaving Certificates (20.97%). Group-A Officers' fathers have a relatively high percentage of fathers with Graduate and Post Graduate degrees (36.96%) and Higher School Leaving Certificates (15.22%). The fathers of Business Wholesalers have a high percentage with High School Leaving Certificates (40%) and a relatively low percentage with Graduate and Post Graduate degrees (25%).

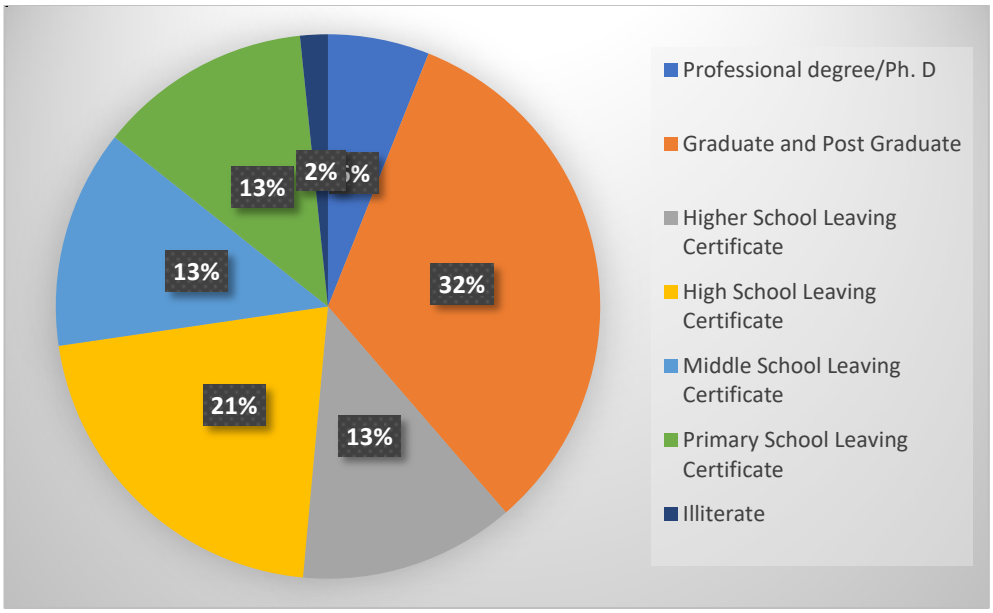


Figure 5.1. Pie chart showing percentage share by fathers' education.

In total, Professional degree/Ph.D. holds a 5.97% percentage which represents the fathers who hold these qualifications across all professional categories. It's a relatively low percentage, indicating that a small portion of fathers across these professions have reached this level of education. Graduate and Post Graduate (32.30%) is the largest category among fathers, indicating that a significant portion of fathers across the board have completed Graduate and postgraduate degrees.

Higher School Leaving Certificate (12.68%) represents a moderate percentage, suggesting that a notable portion of fathers have completed their education at this level. High School Leaving Certificate (21.01%) shows that a substantial percentage of fathers have completed their education up to the High School Leaving Certificate level. Middle School Leaving Certificate with 13.86% is a significant portion but lower than those with higher education levels. Primary School Leaving Certificate with 12.55% is a substantial portion but still lower than those with higher levels of education. Illiterate with 1.63% is the smallest category, indicating that a very small percentage of fathers across all categories are illiterate.

Overall, the data suggests that a majority of fathers in these categories have at least completed their high school education or have pursued higher education beyond that. However, there is still a significant percentage with education levels below high school. This information can be valuable for understanding the overall educational landscape among fathers in these professions.

| Table 5.3. Education of Parents (Mother in %) | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Category** | **Professional degree/Ph. D** | **Graduate and Post Graduate** | **Higher School Leaving Certificate** | **High School Leaving Certificate** | **Middle School Leaving Certificate** | **Primary School Leaving Certificate** | **Illiterate** |
| Master's students | 2.07 | 13.69 | 8.48 | 37.34 | 23.86 | 13.3 | 1.26 |
| Research Scholars | 2.84 | 16.31 | 10.64 | 27.66 | 25.53 | 12.06 | 4.96 |
| Professors | 1.32 | 7.28 | 8.31 | 37.09 | 17.88 | 21.19 | 6.93 |
| Medical officers | 3.41 | 27.27 | 7.95 | 28.41 | 14.77 | 13.64 | 4.55 |
| Engineers | 1.34 | 6.45 | 9.68 | 32.26 | 27.77 | 17.81 | 4.69 |
| Group-A officers | 2.07 | 6.52 | 12.17 | 26.09 | 21.74 | 28.37 | 3.04 |
| Business wholesalers | 5 | 15 | 0 | 55 | 15 | 10 | 0 |
| Total | 2.58 | 13.22 | 8.18 | 34.84 | 20.94 | 16.62 | 3.63 |

*Source: Field survey 2019-2022*

The Table 5.3 provides data on the education levels of mothers across different professional categories, presented in percentage figures. The table lists several professional categories, including Master's students, Research Scholars, Professors, Medical officers, Engineers, Group-A officers, and Business wholesalers. The table displays the percentage of mothers in each category with various levels of education, ranging from Professional degree/Ph.D. to Illiterate.

From Table 5.3. we can see that the percentage of mothers with a professional degree or PhD is relatively low across all categories, ranging from 1.32%

(Professors) to 5% (Business wholesalers). Mothers with Graduate and Post Graduate degrees are more prevalent, with the highest percentage among medical officers (27.27%) and the lowest among Group-A officers (6.52%). A significant percentage of mothers across all categories have completed their education up to the High School Leaving Certificate level, with the highest percentage among Business wholesalers (55%). Middle School Leaving Certificate is also common among mothers, especially in the Group-A officers (28.37%) and Engineers (27.77%) categories. While still substantial, the percentage of mothers with education up to the Primary School Leaving Certificate varies across categories. The percentage of illiterate mothers is relatively low across all categories, with the highest percentage among Professors (6.93%).

The data shows that, on average across all categories, the most common education level among mothers is High School Leaving Certificate (34.84%), followed by Graduate and Post Graduate degrees (13.22%).

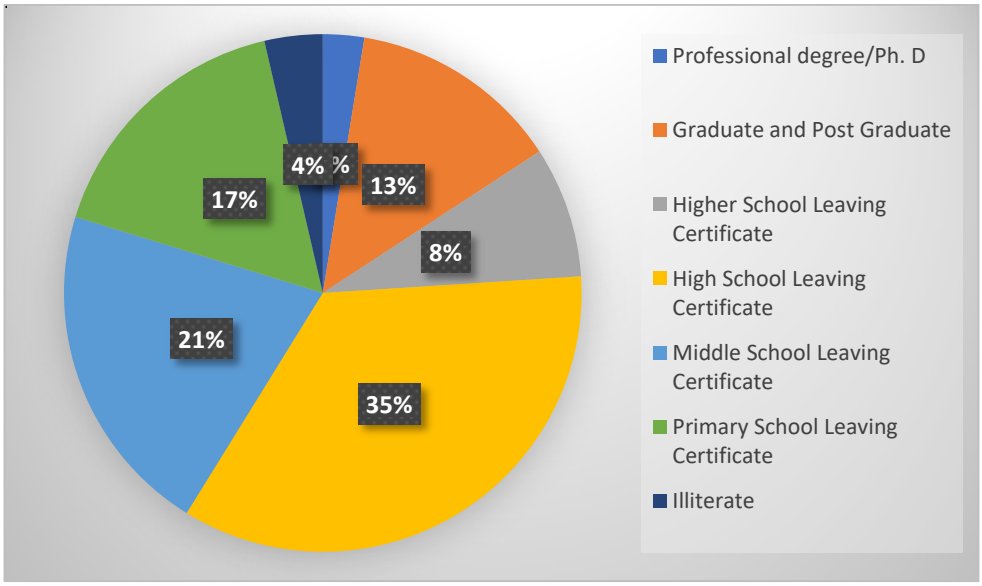


Figure 5.2. Pie chart showing percentage share by mothers' education.

Mothers with professional degrees or Ph. D.s represent a smaller portion of the population, indicating that such high-level education is less common among mothers in these professions. There is considerable variability in the education levels of mothers within each professional category, suggesting that the education backgrounds of mothers can differ widely even within the same profession. This table provides insights into the educational demographics of mothers in various professions and can be valuable for understanding the diversity of educational backgrounds among mothers across these groups.

### 5.2.3. Parents' Occupation

Parents' occupation and educational attainment are important factors that can influence a child's upbringing, access to opportunities, and educational outcomes. These factors are often studied in the context of sociology, education, and social sciences to understand their impact on individuals' lives. Socioeconomic status (SES) is a measure that combines various factors, including parents' occupation and educational attainment, to assess an individual's or family's social and economic position in society. It plays a significant role in shaping a person's life opportunities and outcomes (Duncan, 2012).

Parents' levels of education are often linked to their expectations for their children's education. Parents with higher educational attainment tend to have higher aspirations for their children's academic success, which can positively influence their children's educational achievements (Lareau, 2011). A parent's occupation can impact their child's career aspirations and choices. Children often look up to their parents as role models, and they may be more inclined to pursue careers that are similar to those of their parents, especially if those careers are seen as prestigious or fulfilling (Kerckhoff, 1995).

Parents' occupations and incomes directly affect the financial resources available to support their children's education. Families with higher income levels may have greater access to educational resources such as extracurricular activities,

private tutoring, educational materials, and a supportive learning environment (Sirin, 2005).

Parents' educational attainment can also play a crucial role in determining the educational mobility of their children. Children of parents with higher levels of education are more likely to achieve upward educational mobility, moving into higher education and better career prospects (Blanden & Machin, 2004). The nature of a parent's occupation can have significant implications for family dynamics and work-life balance. Some occupations may require long working hours or irregular schedules, impacting the time parents can devote to their children's education and involvement in their schooling (Bianchi & Milkie, 2010).

Table 5.4. provides data on the occupation of fathers based on different categories of students and professionals. The data is presented in percentages, indicating the proportion of fathers in each occupation category for each group. The table is divided into different categories of students and professionals, including Master's students, Research Scholars, Professors, Medical officers, Engineers, Group-A officers, and Business wholesalers. There are also different occupation groups for fathers, which include Group A & B Government servants, Group C & D Government servants, Church workers (Pastors, Missionaries, Evangelist, church office workers, evangelist teachers), Skilled workers (Barber, Carpenter, weaver), small business/shop owners, Farmers, and Others (Politicians, Contractor, Unemployed).

| Table 5.4. Occupation of Parents (Fathers in %) | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Category** | **Group A & B Gov't servant** | **Group C & D Gov't servant** | **Church worker** | **Skilled worker** | **small business/ shop-owner** | **Farmer** | **Others** |
| Master's students | 20.52 | 19.09 | 6.64 | 16.00 | 14.11 | 18.46 | 5.19 |
| Research Scholars | 18.18 | 11.19 | 7.69 | 14.69 | 17.48 | 22.38 | 8.39 |
| Professors | 17.22 | 7.95 | 9.27 | 18.54 | 10.60 | 32.45 | 3.97 |
| Medical officers | 54.55 | 13.64 | 7.95 | 3.41 | 9.09 | 4.55 | 6.82 |
| Engineers | 41.94 | 19.35 | 4.84 | 3.23 | 4.84 | 17.74 | 8.06 |
| Group-A officers | 21.74 | 26.09 | 4.35 | 10.87 | 13.04 | 17.39 | 6.52 |
| Business wholesalers | 20.00 | 25.00 | 10.00 | 15.00 | 15.00 | 0.00 | 15.00 |
| Total | 26.51 | 16.23 | 7.16 | 11.59 | 13.00 | 19.46 | 6.05 |

*Source: Field survey 2019-2022*

Table 5.4. shows that the highest percentage of fathers of students are Group A & B Government servants (20.52%), followed by Skilled workers (19.09%). The lowest percentage of fathers in this category are Church workers (6.64%) and Others (5.19%). In the research scholar's category, Group A & B Government servants still have a relatively high percentage of fathers (18.18%), but it's lower compared to Master's students. Skilled workers and small business/shop owners also have significant percentages. Farmers (7.69%) and Others (8.39%) have relatively higher percentages compared to Master's students.

In the Professors category, Group A & B Government servants make up 17.22% of fathers. Professors have a higher percentage of fathers in the category of farmers (32.45%) and Church workers (9.27%) compared to the other groups.

Medical officers have a strikingly high percentage of fathers who are Group A & B Government servants (54.55%). Skilled workers, small businesses/shop owners, and Others have lower percentages. Farmers have a very low percentage (7.95%).

Engineers have a high percentage of fathers who are Group A & B Government servants (41.94%). Small business/shop owners and Farmers have relatively lower percentages. Church workers have the lowest percentage (4.84%).

Group A officers have a higher percentage of fathers who are Group C & D Government servants (26.09%). Skilled workers, small businesses/shop owners, and Others have moderate percentages. Farmers have a relatively low percentage (4.35%).

Business wholesalers have a high percentage of fathers who are small business/shop owners (25.00%). Skilled workers and Church workers also have notable percentages. Farmers have no representation in this category.

Overall, it becomes evident that government service occupations classified as Group A & B are prominently represented, accounting for 26.51% of all fathers in the dataset. Similarly, Group C & D government servants make up 16.23%, indicating a significant presence of fathers in government employment. Additionally, small business and shop ownership constitute 13.00% of all fathers, highlighting the prevalence of entrepreneurship. Farming emerges as a significant occupation, with 19.46% of fathers engaged in agriculture. Skilled workers, representing various trades and professions, make up 11.59%. Church workers and those falling into the "Others" category have smaller but notable percentages at 7.16% and 6.05%, respectively.

The table 5.5. provides other data on the occupation of mothers across various categories of students and professionals. Similar to the previous table, this

table presents the data in percentages, indicating the proportion of mothers in each occupation category for each group. The table is divided into different categories of students and professionals, including Master's students, Research Scholars, Professors, Medical officers, Engineers, Group-A officers, and Business wholesalers. There are also different occupation groups for mothers, which include Group A & B Government servants, Group C & D Government servants, Church workers (Pastors, Missionaries, Evangelist, church office workers, evangelist teachers), Skilled workers (Barber, Carpenter, weaver), small business/shop owners, Farmers and Housewives.

Housewives constitute the largest percentage of mothers in the Master's Students category (43.98%), reflecting that a significant number of mothers in this group are primarily homemakers. Small businesses/shop owners also have a substantial presence (20.12%). Government servants (both Group A & B and Group C & D) have relatively lower percentages among mothers. Similar to Master's students, Housewives represent the majority of mothers (49.65%) in this Research Scholars category. Small business/shop owners are the second-largest group (28.67%). Government servants, both in Group A & B and Group C & D, have relatively lower percentages among mothers.

**Table 5.5. Occupation of Parents (Mothers in %)**

| Category | Group A & B Gov't servant | Group C & D Gov't servant | Church worker | Skilled worker | small business/ shop-owner | Farmer | Housewife |
|---|---|---|---|---|---|---|---|
| Master's students | 8.71 | 7.26 | 2.70 | 3.32 | 20.12 | 13.90 | 43.98 |
| Research Scholars | 5.59 | 6.99 | 1.40 | 2.10 | 28.67 | 5.59 | 49.65 |
| Professors | 10.60 | 4.64 | 1.99 | 3.97 | 27.81 | 8.61 | 42.38 |
| Medical officers | 27.27 | 9.09 | 2.27 | 1.14 | 11.36 | 1.14 | 47.73 |
| Engineers | 14.52 | 19.35 | 0.00 | 3.23 | 17.74 | 3.23 | 41.94 |
| Group-A officers | 6.52 | 10.87 | 2.17 | 4.35 | 26.09 | 4.35 | 45.65 |
| Business wholesalers | 5.00 | 30.00 | 5.00 | 5.00 | 30.00 | 0.00 | 25.00 |
| Total | 10.38 | 8.37 | 2.22 | 3.13 | 22.08 | 9.38 | 44.46 |

*Source: Field survey 2019-2022*

Housewives are the dominant group among mothers (42.38%) in this Professors category as well. Small businesses/shop owners have a notable presence (27.81%). Government servants are relatively less represented among mothers, especially in Groups C & D. Among mothers of Medical officers, Housewives make up the highest percentage (47.73%). Skilled workers, small business/shop owners, and Church workers have lower representations.

Housewives continue to be the most common group (41.94%) among mothers in this engineering category. Small business/shop owners and Skilled workers are also represented. There are no Church workers among mothers of Engineers.

Again, Housewives are the majority (45.65%) among mothers in this Group-A Officers category. Small business/shop owners and Skilled workers have notable percentages. Government servants are less represented among mothers, especially in Groups C and D.

Small business/shop owners have the highest representation (30.00%) among mothers in this Business Wholesalers category. Group C & D Government servants also have a significant presence (30.00%). Church workers have a 5.00% representation among mothers.

Overall, the data reflects that "Housewives" constitute the largest group among mothers, representing 44.46% of all mothers in the dataset. This percentage underscores the significant number of mothers primarily engaged in homemaking and caregiving roles. "Small business/shop-owners" account for 22.08%, reflecting the presence of entrepreneurial mothers. "Skilled workers" represent 9.38% of mothers, indicating the diversity of skilled professions within this dataset. "Group A & B Government servants" constitute 10.38%, while "Group C & D Government servants" make up 8.37%, collectively reflecting government service employment among mothers. "Church workers" and "Farmers" each have relatively lower percentages at 2.22% and 3.13%, respectively, among all mothers.

### 5.2.4. Parents' marital status

The relationship between parents' marital status and its impact on children's educational achievement is a multifaceted topic. Marital status can influence children's educational achievement. Research suggests that children from stable, two-parent households (married parents) often perform better academically compared to children from single-parent households (McLanahan & Sandefur, 1994). The level of parental involvement and support can also vary based on marital status. Married parents may have more resources and time to invest in their children's education, which can positively impact achievement (Amato, 2010).

Marital status can also affect the economic well-being of families. Children from divorced or single-parent households may face economic challenges that can impact their access to educational resources and opportunities (Hetherington, & Stanley-Hagan, 1999). Marital conflict, particularly in cases of divorce, can negatively impact children's educational achievement. High levels of conflict between divorced parents can be stressful for children (Grych & Fincham, 1990). Subsequently, the custody arrangement following divorce can affect children's educational stability and outcomes. Joint custody arrangements that maintain consistency in schooling may be less disruptive to children's achievement (Fabricius, et al, 2012). In cases where a parent has deceased, the child may experience grief and emotional challenges that can impact their educational achievement. Access to support and counselling can be crucial in such situations (Worden, 1996). Longitudinal studies on the impact of parental marital status on educational achievement can provide insights into how these factors influence children's development over time (Härkönen & Dronkers, 2006).

The table presents data on parents' marital status across various categories of students and professionals. The three marital status categories are "Married," "Divorced," and "Single (Due to death)." Among Master's students, the majority of parents are "Married," accounting for 81.33%. A notable proportion of parents in this category are "Divorced," representing 17.43%. A small percentage of parents are "Single (Due to death)" at 1.24%.

| Table 5.6. Parents' marital status | | | | |
|---|---|---|---|---|
| **Category** | **Sub- Category** | **Married** | **Divorced** | **Single** *(Due to death)* |
| STUDENTS | Master's students | 81.33 | 17.43 | 1.24 |
| | Research Scholars | 81.82 | 16.08 | 2.10 |
| SUCCESSFUL PERSONS | Professors | 92.05 | 5.30 | 2.65 |
| | Medical officers | 86.36 | 12.50 | 1.14 |
| | Engineers | 87.10 | 9.68 | 3.23 |
| | Group-A officers | 80.43 | 13.04 | 6.52 |
| | Business wholesalers | 85.00 | 10.00 | 5.00 |
| Total | | 83.87 | 14.11 | 2.02 |

*Source: Field survey 2019-2022*

Research Scholars exhibit a similar pattern, with the highest percentage of parents being "Married" (81.82%). "Divorced" parents make up 16.08%, while "Single (Due to death)" parents are 2.10%. Among Professors, a significant majority are "Married" (92.05%). The percentage of "Divorced" parents is relatively low at 5.30%, and "Single (Due to death)" parents account for 2.65%. For Medical Officers, "Married" parents constitute the largest group at 86.36%. "Divorced" parents make up 12.50%, while "Single (Due to death)" parents are 1.14%. Engineers also have a majority of "Married" parents, representing 87.10%. "Divorced" parents account for 9.68%, and "Single (Due to death)" parents are 3.23%. Among Group-A Officers, 80.43% of parents are "Married." "Divorced" parents make up 13.04%, while "Single (Due to death)" parents are 6.52%. Business Wholesalers have 85.00% of parents who are "Married." "Divorced" parents constitute 10.00%, and "Single (Due to death)" parents are 5.00%.

The data reveals that the majority of parents are "Married," constituting 83.87%. This indicates that a significant proportion of parents within the sampled population are in marital partnerships. "Divorced" parents make up 14.11% of the total, indicating a notable presence of individuals who have experienced divorce. Meanwhile, "Single (Due to death)" parents represent 2.02% of the total, indicating a smaller but still significant portion of parents who have become single due to the death of a spouse. In summary, this provides a holistic view of the marital status diversity within the dataset, emphasizing the prevalence of married parents while acknowledging the presence of divorced and bereaved individuals, contributing to a comprehensive understanding of family structures in various educational and professional categories.

### 5.2.5. Family Income

The relationship between family income and educational achievement is a well-studied area. Family income is a key component of socioeconomic status (SES), and SES has a significant impact on educational achievement. Children from higher-income families tend to perform better academically (Sirin, 2005). Higher family income often provides access to resources that can support educational achievement, such as tutoring, educational materials, and extracurricular activities (Duncan, & Murnane, 2011). It can influence a family's ability to choose residences in neighbourhoods with better-funded schools, which can positively impact educational outcomes (Lafortune, et al., 2018).

Children from higher-income families may have more opportunities to participate in extracurricular activities, which can enhance their educational experiences and achievement (Mahoney & Stattin, 2000). These parents have more flexibility to be involved in their children's education, attend school events, and provide academic support (Fan & Chen, 2001). Economic deprivation and poverty are also powerful correlates of cognitive development and behaviour problems in children, even after accounting for other factors such as family structure and maternal schooling (Duncan et al 1994).

Therefore, it is crucial to address the lower economic sections of the society. Public policies should aim at reducing income-related disparities in education, such as targeted financial aid and school funding reforms, which can help mitigate the negative effects of low family income on educational achievement (Chetty, & Katz, 2016).

**Table 5.7. The average monthly income of their parents**

| Category | Sub- Category | Monthly Income in rupees |
|---|---|---|
| STUDENTS | Master's students | 30804.97 |
| | Research Scholars | 29793.43 |
| SUCCESSFUL PERSONS | Professors | 21093.74 |
| | Medical officers | 33607.95 |
| | Engineers | 23556.45 |
| | Group-A officers | 24532.58 |
| | Business wholesalers | 43271.23 |
| Total | | 29380.05 |

*Source: Field survey 2019-2022*

The table 5.7. presents data on the average monthly income of the parents of individuals in various categories, including Master's students, Research Scholars, Professors, Medical officers, Engineers, Group-A officers, and Business wholesalers. It provides the corresponding average monthly income in rupees for each category.

Table 5.7 shows that Master's students have an average monthly parental income of 30,804.97 rupees, while Research Scholars have a slightly lower average of 29,793.43 rupees. These categories likely represent younger individuals pursuing higher education. Their parents' income may reflect the financial support provided for their education. It's important to consider that these figures could be subject to

inflation, and the actual purchasing power may differ from what these incomes might have represented in other categories.

Professors have an average monthly parental income of 21,093.74 rupees.it is the lowest among the successful persons. It's possible that these figures represent the income levels of a slightly older generation, and they may not reflect current income standards. While Parents of Medical Officers have a relatively higher average monthly income of 33,607.95 rupees. This might be a reflection of a higher percentage of parents working in government jobs.

Parents of Engineers have an average monthly income of 23,556.45 rupees. While Parents of Group-A Officers have an average monthly income of 24,532.58 rupees. This category likely includes parents of individuals in government service, where income levels can vary based on rank and seniority. Parents of Business Wholesalers have the highest average monthly income at 43,271.23 rupees. Despite the lower percentage of parents working in government jobs, it represents parents of entrepreneurs engaged in trade, which can be financially rewarding.

It's evident that students and research scholars, being part of the younger generation, may have parents with incomes adjusted for inflation in recent years. In contrast, professionals like Medical Officers, Engineers, Group-A Officers, and Business Wholesalers may have parents with incomes that were earned during earlier years when income standards were different. In summary, when considering age and inflation, it's essential to recognize that the incomes of students and research scholars may reflect present-day financial support from their parents, while the incomes of professionals may be from past years and may not fully represent current economic conditions.

### 5.3. Spatial Background

The spatial background, including the geographical location and neighbourhood characteristics in which a student grows up, can have a significant impact on their educational achievement. The socioeconomic status of the

neighbourhood where a student lives can influence their access to educational resources, the quality of schools, and overall educational opportunities. Higher SES neighbourhoods often provide more advantages for educational achievement (Sampson, et al, 2002).

Geographical disparities in educational achievement can exist at regional and urban-rural levels. Understanding these disparities is essential for addressing educational inequalities (Logan et al, 2004). Students in neighbourhoods or urban areas with access to high-quality schools and ample educational resources tend to have better educational outcomes. Neighbourhoods with well-funded schools and experienced teachers can positively impact student achievement (Bryk & Schneider, 2002).

Proximity to cultural institutions, libraries, museums, and afterschool programs can vary by spatial background such as urban and rural areas. Access to these resources can also enhance a student's educational experiences and achievement (Murnane & Duncan, 2011).

To mitigate this impact of disparity in spatial background, policies aimed at reducing spatial disparities in education, such as equitable school funding and community development initiatives, can play a critical role in improving educational achievement (Ladd & Fiske, 2009).

### 5.3.1. Urban-Rural Background

The urban-rural background of students can have a significant impact on their educational achievement and success. Urban areas often provide better access to educational resources such as schools with advanced facilities, libraries, extracurricular activities, and educational programs. Students in urban settings may have more enrichment opportunities (NCES, 2019). Urban schools may benefit from more extensive funding and resources, potentially leading to higher-quality education. However, this can also vary widely within urban areas (Clotfelter, et al, 2010). Urban schools may have larger class sizes, which can impact individualized

attention. Smaller class sizes in rural areas may foster stronger teacher-student relationships (Konstantopoulos, 2009).

On the other hand, Rural communities often have strong ties, and schools may benefit from close community involvement. This support can positively impact educational success (Bryk & Schneider, 2002). However, Rural students may face transportation challenges, such as long bus rides, which can affect their readiness to learn. This can have implications for academic achievement (Hofferth & Sandberg, 2001). Urban areas in contrast to rural areas, typically have better access to technology and the internet, which can impact students' ability to engage in digital learning and research (Warschauer, 2004). Despite all the disadvantages in Access to educational resources, quality of schools, transportation challenges and technology access, rural life and experience can also offer unique opportunities and positive impacts on educational achievement and life success.

Rural communities often have tight-knit social networks and a strong sense of community. This supportive environment can positively impact students' well-being and motivation to succeed (Pretty, et al, 2007). It often provides access to nature and outdoor experiences. These opportunities can enhance students' physical and mental well-being, positively influencing their educational achievement (Wells & Evans, 2003).

Rural life often fosters close family relationships. Strong family ties can provide emotional support and a foundation for educational success (Hardway, & Fuligni, 2006). It often instils a strong work ethic in individuals. This work ethic can translate into discipline and determination, positively impacting educational and career success (Ray, 2009).

Rural poverty in India remains a significant issue, with a substantial portion of the population living below the poverty line. Income disparities between rural and urban areas persist, contributing to economic inequality (MRD). However, students from lower economic backgrounds often develop resilience, determination, and grit as they face and overcome adversity. These traits can contribute to their educational success (Duckworth, et al, 2007). Lower economic status can motivate students to

strive for a better future through education. Many individuals from economically disadvantaged backgrounds have a strong desire to improve their circumstances, driving them to excel academically (Heckman, 2008). These students may develop a strong sense of purpose and a commitment to making a positive impact on their communities through education (Schippers, 2019).

Table 5.8 provides information about the urban and rural backgrounds of individuals in various categories, such as Master's students, Research Scholars, Professors, Medical officers, Engineers, Group-A officers, and Business wholesalers. The percentages in the table represent the distribution of individuals from each category in urban and rural backgrounds. For instance, 49.59% of Master's students have an urban background, while 50.41% have a rural background. In some categories, such as Business wholesalers and Medical officers, there is a significant urban dominance. For example, 80% of Business wholesalers come from urban backgrounds, while only 20% come from rural backgrounds. Similarly, 64.77% of Medical officers are from urban areas.

**Table 5.8. Urban-Rural Background**

| Category | Category | Urban | Rural |
|---|---|---|---|
| STUDENTS | Master's students | 49.59 | 50.41 |
| | Research Scholars | 54.55 | 45.45 |
| SUCCESSFUL PERSONS | Professors | 38.41 | 61.59 |
| | Medical officers | 64.77 | 35.23 |
| | Engineers | 45.16 | 54.84 |
| | Group-A officers | 39.13 | 60.87 |
| | Business wholesalers | 80.00 | 20.00 |
| Total | | 49.80 | 50.20 |

*Source: Field survey 2019-2022*

On the other hand, some categories have a rural dominance. For instance, 61.59% of Professors and 60.87% of Group-A officers are from rural backgrounds.

In a few categories, the distribution between urban and rural backgrounds is relatively balanced. For example, Master's students have a nearly equal distribution

(49.59% urban vs. 50.41% rural), and Research Scholars are also close to a balanced distribution (54.55% urban vs. 45.45% rural).

The table also provides the total percentages for urban and rural backgrounds. The total urban percentage is 49.80%, while the total rural percentage is 50.20%, indicating a relatively even distribution between urban and rural backgrounds across all categories.

### 5.4. Socio-Spatial Status

"Socio-spatial status" is a multifaceted concept that encompasses the interconnectedness of social and spatial aspects of individuals and communities. According to Smith (2001), it involves the dynamic interplay between socioeconomic factors and the physical environment, which influences the distribution of resources and opportunities within a given area. In a study by Wilson and Davis (2018), socio-spatial status was found to significantly impact access to healthcare services in urban areas, highlighting the importance of considering both social and spatial dimensions in healthcare planning. Understanding socio-spatial status is essential for addressing disparities and promoting equitable development (Brown, 2019).

In the current study, socio-spatial status is assessed using principal component analysis to create composite indices. The composite index score, which will provide us with the social status of the category, was calculated using 16 indicators as shown in Table 5.9.

| Table 5.9. Indicators of socio-spatial status | | |
|---|---|---|
| **Dimension** | **Code of Indicators** | **Definition of Indicators** |
| SOCIAL | M_Parents | % Of respondents with married Parents |
| | F_Education | % Of respondents have a Father's Education of Bachelors and Above |
| | M_Education | % Of Respondents have a Mother's Education in HSLC and Above |
| | Fam_Struc | % Of Respondents have Family members of less than 4 members |
| | Income | % Of Respondents having Family Income of more than 26000 rupees |
| | H_type | % Of Respondents having RCC House |
| | 4_Wheel | % Of Respondents having one or more four-Wheeler |
| | E_Primary | % Of Respondents attending English Medium in Primary Level |
| | E_middle | % Of Respondents attending English Medium in Middle Level |
| | E_High | % Of Respondents attending English Medium in High Level |
| SPACIAL | Urban | % Of respondents from Urban Backgrounds |
| | D_Capital | % Of respondents coming from District Capitals |
| | Outside_State | % Of Respondents Studying Outside the State During their Bachelor's and Master |
| | Institution_P_D | % Of Respondents having a primary school and home distance of Less than 2 km |
| | Institution_M_D | % Of Respondents having a middle school and home distance of Less than 2 km |
| | Institution_H_D | % Of Respondents having a high school and home distance of Less than 2 km |

The 16 variables are made up of 10 Social variables and 6 Spatial variables as shown in table 5.9. these social and spatial variables are the factors affecting the socio-spatial status calculated and developed for this study.

Z Score Standardized approaches were used to first normalize the socio-spatial data from 16 indicators. Additionally, descriptive statistics were developed to illustrate the value's minimum, maximum, average, and standard deviation (Table 5.10). It prevents factors from having an unfair influence on the analysis.

| Table 5.10. Descriptive Statistics of the Indices | | | | | |
|---|---|---|---|---|---|
| **Descriptive Statistics** | | | | | |
| | **N** | **Minimum** | **Maximum** | **Mean** | **Std. Deviation** |
| M_Parents | 7 | 80.43 | 92.05 | 84.8700 | 4.08881 |
| F_Education | 7 | 31.47 | 53.40 | 38.2671 | 7.88712 |
| M_Education | 7 | 16.91 | 38.63 | 23.9714 | 7.82112 |
| Fam_Struc | 7 | 87.34 | 96.38 | 92.6143 | 3.38034 |
| Income | 7 | 40.31 | 85.00 | 59.1057 | 15.94659 |
| H_type | 7 | 6.35 | 95.00 | 57.6886 | 28.86085 |
| Wheel | 7 | 32.45 | 90.00 | 65.3986 | 19.60159 |
| E_Primary | 7 | 14.30 | 37.70 | 27.2000 | 7.65267 |
| E_middle | 7 | 12.30 | 35.70 | 25.2000 | 7.65267 |
| E_High | 7 | 10.30 | 33.70 | 23.2000 | 7.65267 |
| Urban | 7 | 38.41 | 80.00 | 53.0871 | 14.99011 |
| D-_Capital | 7 | 21.07 | 75.00 | 37.5100 | 18.89864 |
| Outside_State | 7 | 4.54 | 96.43 | 49.5157 | 38.12397 |
| Institution_P_D | 7 | 56.71 | 80.00 | 73.4986 | 8.56601 |
| Insti_M_D | 7 | 52.39 | 75.00 | 69.0814 | 8.48345 |
| Inst_H_D | 7 | 31.02 | 65.00 | 49.3357 | 10.62396 |
| Valid N (listwise) | 7 | | | | |

Principal Component Analysis (PCA) was used to acquire the results once normalisation was finished. To determine whether the techniques should be used, PCA must compute correlation analysis and test statistics like Kaiser-Meyer-Olkin

(KMO) and Bartlett's test Sphericity. The correlation coefficient matrix reveals that there was no extreme multi-colinearity and that the majority of the variables were inter-correlated to a large extent.

KMO for the chosen data is 0.542, which is a valid value for PCA. The SPSS computer program was then used to run PCA to extract communities and components. We can rule out the hypothesis because the probability is less than 0.05 and Bartlett's Test of Sphericity revealed a significance level of 0.00.

Then, in the computer programme "Statistical Package for Social Sciences" (SPSS), principal component analysis (PCA) was used to extract commonalities and components. More than 1, 4 components were recovered using Kaiser's eigenvalue-based criterion, and collectively they account for 90.37 percent of the data set's overall volatility. It is thought that the proportion of variation explained is sufficient to continue the analysis.

I identified that there are multiple initial Eigen Values (Total) after doing the PCA in SPSS. It was 6.606, 4.668, 1.820, and 1.366 in this instance. It depends on the data how many eigenvalues over one there are. The four components account for 90.37 per cent of the variance in the variables analyzed. Indicators including D_Capital (% coming from District Capitals), Urban (% Of Urban Backgrounds), Income (% Of Family Income of more than 26000 rupees), Wheel (% Of one or more four-wheelers), H_type (% Of RCC House), and Inst_H_D (% Of high school and home distance of Less than 2 km) are all part of component 1. The two components are Fam_Struc (% Of Family members of less than 4 members), E_middle (% Of attending English Medium in Middle Level), E_High (% Of attending English Medium in High Level), and E_Primary (% Of attending English Medium in Primary Level).

The three elements are M_Education (% Of Mother’s Education of HSLC and Above), F_Education (% Of Father’s Education of Bachelor and Above) and Outside_State (% Of Studying Outside the State During Bachelor and Master). The 4 components include M_Parents (% Of married Parents), Insti_M_D (% Of middle school and home distance of Less than 2 km) and Institution_P_D (% Of primary

school and home distance of Less than 2 km). This is shown in the rotational component matrix presented in Table 5.11.

**Table 5.11. Rotated Component Index**

| Rotated Component Matrix[a] | | | | | Communalities |
|---|---|---|---|---|---|
| | Component | | | | |
| | 1 | 2 | 3 | 4 | |
| D_Capital | **0.953** | 0.074 | 0.046 | 0.13 | 0.897 |
| Urban | **0.925** | 0.182 | 0.146 | 0.141 | 0.966 |
| Income | **0.9** | 0.275 | 0.176 | 0.213 | 0.898 |
| Wheel | **0.758** | 0.41 | 0.041 | 0.434 | 0.713 |
| H_type | **0.749** | -0.143 | 0.073 | -0.182 | 0.961 |
| Inst_H_D | **0.679** | -0.316 | 0.282 | 0.58 | 0.619 |
| E_middle | 0.074 | **0.951** | -0.12 | -0.046 | 0.932 |
| E_High | 0.074 | **0.951** | -0.12 | -0.046 | 0.926 |
| E_Primary | 0.074 | **0.951** | -0.12 | -0.046 | 0.926 |
| Fam_Struc | 0.488 | **0.615** | 0.049 | 0.307 | 0.926 |
| F_Education | 0.07 | -0.144 | **0.966** | 0.081 | 0.929 |
| Outside_State | 0.291 | -0.561 | **0.747** | 0.06 | 0.933 |
| M_Education | 0.083 | 0.613 | **0.696** | 0.175 | 0.962 |
| M_Parents | 0.033 | -0.194 | 0.049 | **0.625** | 0.948 |
| Insti_M_D | 0.399 | -0.252 | 0.498 | **0.689** | 0.945 |
| Institution_P_D | 0.422 | -0.258 | 0.484 | **0.684** | 0.977 |
| % of explained variance | 41.289 | 29.174 | 11.375 | 8.538 | |
| Expl.Var. (Eigen value) | 6.606 | 4.668 | 1.820 | 1.366 | |
| Expl./Total | 0.14 | 0.3 | 0.3 | 0.3 | |
| Total Var. | 90.376 | | | | |

*Extraction Method: Principal Component Analysis.*

*Rotation Method: Varimax with Kaiser Normalization.*

*a. Rotation converged in 6 iterations.*

*Expl. Var. is the variance explained by the component, and Expl./Total is the explained variance divided by the total variance of the five components*

For the indicators' weight, I multiplied the first Eigen value's (6.606) value by the first extracted component column's (0.953, 0.925, 0.9, 0.758, 0.749, 0.679, 0.074, 0.074, 0.074, 0.488, 0.07, 0.291, 0.083, 0.033, 0.399, and 0.422) values, the second Eigen value's (4.668), the third Eigen value's (1.820), After adding up all the results for each variable, I created table 5.12, which displays the results.

**Table 5.12. Weight of the Indicators**

| **Indicators** | **Weightage** |
|---|---|
| Income (% Of Family Income of more than 26000 rupees) | 7.60 |
| Wheel (% Of one or more four-wheelers) | 7.60 |
| Urban (% Of Urban Backgrounds) | 7.24 |
| D_Capital (% coming from District Capitals) | 6.90 |
| Fam_Struc (% Of Family members of less than 4 members) | 6.60 |
| E_middle (% Of attending English Medium in Middle Level) | 4.95 |
| E_High (% Of attending English Medium in High Level) | 4.95 |
| E_Primary (% Of attending English Medium in Primary Level) | 4.95 |
| H_type (% Of RCC House) | 4.12 |
| Inst_H_D (% Of high school and home distance of Less than 2 km | 3.89 |
| M_Education (% Of Mother’s Education of HSLC and Above) | 3.73 |
| Institution_P_D (% Of primary school and home distance of Less than 2 km) | 2.60 |
| Insti_M_D (% Of middle school and home distance of Less than 2 km) | 2.48 |
| M_Parents (% Of married Parents) | 0.25 |
| F_Education (% Of Father’s Education of Bachelor and Above) | -0.02 |
| Outside_State (% Of Studying Outside the State During Bachelor and Master) | -0.53 |

The following formula was used to calculate the Composite index score after weights for each indication were obtained, and the index values for all the categories (Master's students, Research Scholars, Professors, Medical Officers, Engineers, Group-A officers, and Business Wholesalers) were calculated.

$$I = \sum_{j=1} Xi \left( \sum_{j=1} /Lij/.Ej \right) / \sum_{i} \left( \sum_{j=1} /Lij/.Ej \right)$$

Where I is the index,

Xi is the i-th Indicator;

Lij is the factor loading of the i-th

variable on the j-th factor;

E is the Eigen Value of the j-th factor

The resulting table (Table 5.13) of a composite socio-spatial status scale is obtained after executing the formula.

**Table 5.13. Composite Index of Socio-Spatial Status**

| S.No | Category | Composite score |
|---|---|---|
| **1.** | Master's students | 0.43 |
| **2.** | Research Scholars | 0.20 |
| **3.** | Professors | -1.01 |
| **4.** | Medical officers | 0.59 |
| **5.** | Engineers | -0.30 |
| **6.** | Group-A officers | -0.78 |
| **7.** | Business wholesalers | 0.87 |

As expected, at the top of the list, Business Wholesalers have the highest socio-spatial status with a positive composite score of 0.87, indicating their relatively elevated position in the context being assessed. Following closely behind are

Medical Officers, whose composite score of 0.59 places them in a favourable socio-spatial status, though slightly below Business Wholesalers. Master's Students come next with a positive score of 0.43, indicating a relatively higher status compared to several other categories, but still falling short of the top two.

Research Scholars, although in a positive range with a composite score of 0.20, find themselves in a somewhat lower socio-spatial status compared to Master's Students and Medical Officers. Engineers, with a composite score of -0.30, start moving into the lower end of the scale, suggesting a decreased socio-spatial status in this assessment. Further down the list are Group-A Officers, whose score of -0.78 indicates a relatively lower status compared to previous categories.

Finally, at the lowest end of the socio-spatial status spectrum, Professors hold the least favourable position. Their composite score of -1.01 suggests that, in the context of the measurement, Professors have the lowest socio-spatial status among all the listed categories.

## 5.5. Conclusion

This chapter provides a comprehensive analysis of the socio-spatial background of the students and successful persons. The data indicates substantial variations in family size and sibling numbers across these groups, with business wholesalers and engineers typically having larger families and more siblings, while younger Master's students tend to have smaller families and fewer siblings on average. the data indicates that a majority of fathers in these categories have completed their high school education or pursued higher education. However, a significant percentage have education levels below high school. The proportion of fathers with Professional degree/Ph.D. is relatively low across all professional categories, while the largest category among fathers is Graduate and Post Graduate degrees. Medical doctors have the highest percentage of fathers with professional qualifications, and master's students have the highest percentage of fathers with no education. Mothers in generally have fewer professional degrees or Ph.D.s,

suggesting that such advanced education is less common among them. A larger proportion of mothers hold Graduate and Post Graduate degrees, with the highest percentage among medical officers and the lowest among Group-A officers. Additionally, over half of the mothers in all categories have completed their education up to the High School Leaving Certificate level, with the highest percentage among Business wholesalers.

Government service roles in categories Group A & B are notably well-represented among fathers, followed by Group C & D government servants, small business and shop ownership, farming, skilled workers, church workers, and the "Others" category, indicating a diverse range of occupations. Medical officers have the highest proportion of fathers in Group A & B government roles, followed by engineers, while small business/shop owners, farmers, and church workers have lower percentages. While Professors have a higher percentage of fathers in the category of farmers. The data of Mother's Occupation highlights that "Housewives" comprise the largest group of mothers, emphasizing their role in homemaking and caregiving, while "Small business/shop-owners" represent entrepreneurial mothers. "Skilled workers" demonstrate the diversity of skilled professions. "Group A & B Government servants" and "Group C & D Government servants" collectively reflect government service employment among mothers, with "Church workers" and "Farmers" having relatively lower percentages.

In the present study, the majority of parents are "Married," indicating a significant prevalence of marital partnerships, while "Divorced" parents are notably present, and "Single (Due to death)" parents represent the smallest but still significant portion, offering a comprehensive view of marital status diversity within the dataset and contributing to an understanding of family structures in various educational and professional categories.

Parents of Medical Officers tend to have a relatively higher average monthly income, possibly due to a higher proportion of them working in government jobs, while Professors have the lowest average monthly parental income among the categories. Master's students have an average income slightly lower than Research

Scholars but still one of the highest in the study, indicating potential adjustments for inflation over recent years.

In the spatial context, Business wholesalers and Medical officers show a notable preference for urban backgrounds, while Professors and Group-A officers have a rural inclination. Master's students and Research Scholars have a relatively balanced urban and rural distribution.

The various degrees of socio-spatial status have been identified after examining 16 socio-spatial variables of students and successful persons using various statistical approaches. As expected, Business Wholesalers hold the highest socio-spatial status with a positive composite score, closely followed by Medical Officers, who also have a favourable status but slightly lower. Master's Students have a positive score, indicating a relatively higher status compared to several categories. Research Scholars fall into a positive range but have a somewhat lower status than Master's Students and Medical Officers. Engineers have a negative score, moving towards a lower socio-spatial status, and Group-A Officers have the lowest score, signifying a relatively lower status compared to the previous categories.

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# CHAPTER-6

# MOTIVATION AND PROBLEM

## 6.1. Introduction

Motivation plays a crucial role in a student's academic journey, serving as the driving force behind their efforts and commitment to learning. However, students often encounter various challenges, such as academic pressure and external distractions, which can hinder their motivation and overall educational experience. This chapter deals with those driving forces and problems faced by students and successful persons during their educational studies.

## 6.2. Motivation

Success is a complex and multifaceted concept, and the reasons why people succeed can vary widely depending on individual goals, circumstances, and definitions of success. However, several common factors and principles contribute to success for many people. Successful individuals often have a clear sense of what they want to achieve. They set specific, achievable goals and create a vision for their future, providing them with a sense of direction and purpose (Locke & Latham, 2002). It typically requires dedication and hard work. Successful people are often willing to put in the time and effort needed to achieve their goals, even when faced with obstacles or setbacks (Duckworth, et al 2007).

Daniel Goleman's work on emotional intelligence highlights the importance of self-awareness, self-regulation, empathy, and social skills in achieving success, particularly in interpersonal contexts (Perloff, 1997). Regarding educational quality, research consistently shows that access to quality education and continuous learning can open doors to opportunities and contribute to career success. Education equips individuals with knowledge and skills (Goldin & Katz, 2008).

Besides self-determination, adaptability, resilience and other traits, external motivation can also highly influence one’s success in life. Family motivation and

support can significantly impact an individual's success in various aspects of life, including education, career, and personal development. A supportive family environment provides emotional encouragement, which can boost an individual's confidence and self-esteem, enabling them to face challenges with resilience (Conger & Donnellan, 2007). Parents and family members who set positive examples and demonstrate a strong work ethic, ambition, and a commitment to education can inspire their children to strive for success (Bandura, 1986). Financial support from family members, such as paying for education or providing resources for personal development, can also significantly reduce financial barriers and enable individuals to pursue their goals (Hossler & Stage, 1992).

Another impactful motivation may come from Partners. Having a supportive partner, whether a girlfriend or boyfriend, can positively influence educational success. Their motivation and encouragement can provide emotional support and help one stay focused on your academic goals. Their emotional support can reduce stress and anxiety related to academic challenges. It can create a positive emotional environment that enhances overall well-being, making it easier to concentrate on studies (Cutrona & Russell, 1990). They can provide motivation and encouragement, reminding one of his or her goals and helping them stay on track. Their belief in one's abilities can boost one's self-confidence and drive to succeed (Deci & Ryan, 2000). A supportive partner can help alleviate stress by providing a listening ear, offering advice, or simply being a source of comfort during challenging times. Reduced stress can lead to better focus and academic performance (Cohen & Wills, 1985)

Teachers are also the paramount factors affecting students' education and life course. They play a vital role in motivating students and shaping their educational success. Their expectations of their students and themselves can significantly influence students' achievements. Teachers who have high expectations for their students tend to create a positive classroom environment where students are encouraged to perform at their best. This expectation of success can boost students' confidence and motivation (Jussim & Harber, 2005). Teachers who build caring and supportive relationships with their students can create a sense of belonging and trust.

These positive relationships can motivate students to excel academically and feel comfortable seeking help when needed (Roordaet al, 2011).

There are other reasons why individuals aspire to success in life, and these motivations often encompass personal, financial, and societal goals. Economic independence, including financial stability and the ability to support oneself and one's family, is a significant driver of success. Financial security can lead to a higher quality of life and reduced stress related to financial concerns (Darity & Goldsmith, 1996). Career Advancement and Job Satisfaction is also one of the driving factors. Many individuals seek success to advance their careers, achieve job satisfaction, and attain professional recognition. Career success can provide a sense of accomplishment and fulfilment (Tims, et al, 2012). Some people aspire to success as a means to make a positive impact on society. They want to contribute to the well-being of their communities and address social, environmental, or humanitarian issues. (Sivanathan & Pettit, 2010).

Table 5.1. presents an insightful overview of the motivation levels of various educational and professional categories. This information has been derived from a field survey using a Likert scale and assessed on a scale of 1 to 5, where 1 signifies very low motivation, and 5 represents very high motivation. The tables show that students demonstrate strong motivation across several aspects, with notably high scores in family support (4.46), financial stability (4.44), and career and job prospects (4.37). This suggests that the support of their families and the promise of financial stability are potent motivators, while the aspiration for future career success is a driving force. However, their motivation from teachers (3.49) and partners (2.86) is comparatively lower, which could be due to varying teaching quality and less influence from partners during this phase of education.

**Table 6.1. Motivation during education (average Score)**

| Category | Sub-Category | Family support | Financial stability | Career and job | Service to society | Teachers Motivation | Partners Motivation |
|---|---|---|---|---|---|---|---|
| STUDENTS | **Master's students** | 4.46 | 4.44 | 4.37 | 4.01 | 3.49 | 2.86 |
| | **Research Scholars** | 4.13 | 4.39 | 4.24 | 3.99 | 3.87 | 3.05 |
| SUCCESSFUL PERSONS | **Professors** | 4.27 | 4.43 | 4.63 | 4.12 | 4.12 | 2.25 |
| | **Medical officers** | 4.33 | 4.28 | 4.63 | 4.24 | 3.50 | 2.45 |
| | **Engineers** | 4.08 | 4.29 | 4.56 | 3.81 | 3.10 | 2.13 |
| | **Group-A officers** | 4.36 | 4.35 | 4.57 | 4.21 | 3.34 | 2.56 |
| | **Business wholesalers** | 4.47 | 4.12 | 4.06 | 4.18 | 3.29 | 2.27 |
| | **Total** | **4.30** | **4.33** | **4.44** | **4.08** | **3.53** | **2.51** |
| ***Wherein, 1= very Low, 2=low, 3 medium, 4= high, 5= very high*** | | | | | | | |

*Source: Field Survey 2019-2022*

Research scholars show a similar pattern, with high motivation from family support (4.13) and financial stability (4.39). Their strong motivation in career and job prospects (4.24) highlights their commitment to their research fields. The motivation from teachers (3.87) is relatively high, reflecting the crucial role of mentors in research. Partners (3.05) play a moderate motivational role, possibly as research scholars often engage in collaborative work.

Professors exhibit the highest motivation levels overall. Their motivations stem from family support (4.27) and financial stability (4.43), which are important for individuals in academia, but notably, career and job prospects (4.63) are the highest among all categories, reflecting their dedication to their profession. High motivation from teachers (4.12) underscores their respect for education. Partners

(2.25) seem to have less impact on their motivation, possibly due to the demanding nature of the academic profession.

Medical officers, similar to professors, value family support (4.33) and financial stability (4.28). Their strong motivation in career and job prospects (4.63) is in line with the dedication required in the medical field. High motivation from service to society (4.24) reflects their commitment to public health. Teachers (3.50) play a moderate role in their motivation, while partners (2.45) have a relatively lower influence, possibly due to medical careers' demanding and time-consuming nature.

Engineers emphasize financial stability (4.29) and career and job prospects (4.56) as their primary motivators. The drive for technological advancement and societal impact is evident in their high motivation for service to society (3.81). Motivation from teachers (3.10) is moderate, indicating room for improvement in educational support. Partners (2.13) have a limited influence, possibly due to the demanding nature of engineering professions.

The Group-A officers are highly motivated by family support (4.36) and financial stability (4.35). Their strong motivation in career and job prospects (4.57) reflects their commitment to public service. Service to society (4.21) is also a significant motivator. Teachers (3.34) have a moderate influence, while partners (2.56) play a relatively smaller role, possibly due to the demands of public service roles.

Business wholesalers prioritize family support (4.47) and financial stability (4.12), emphasizing the importance of these factors in the business world. Career and job prospects (4.06) motivate them, as does the desire for societal impact (4.18). Teachers (3.29) have a moderate role in their motivation, while partners (2.27) contribute less, possibly due to the focus on business endeavours.

When considering the total across all categories, family support (4.30) and financial stability (4.33) emerge as universal and strong motivators. Career and job prospects (4.44) are also significant, reflecting the overarching desire for success. Service to society (4.08) is a notable motivator, reflecting a sense of societal

responsibility. Teachers (3.53) have a moderate influence on average, while partners (2.51) play a relatively smaller role in motivating individuals during their education.

In summary, this analysis highlights the diversity of motivators among different categories, with common themes of family support, financial stability, and career aspirations. Additionally, the role of teachers and partners varies across categories, reflecting the unique demands and characteristics of each profession or educational phase.

### 6.3. Problems

Students often face various challenges and problems during their educational journey. These challenges can impact their academic performance and overall well-being. These challenges may include unsupportive families, financial problems, transportation, accommodation, lower educational quality, discrimination, and health issues.

If a family does not show interest in a student's education it may lead to a lack of motivation to excel academically. The absence of positive reinforcement from a family can hinder a student's enthusiasm for learning (Eccles & Wigfield, 2002). An unsupportive family environment, characterized by conflict, neglect, or emotional abuse, can lead to emotional distress and mental health issues that interfere with a student's ability to focus on their studies (Compas, et al, 2001).

Financial difficulties, such as the cost of tuition, textbooks, and living expenses, can create substantial barriers to accessing education and may lead to increased stress and concerns about affordability (Baum & Payea, 2013). Physical and mental health problems, including chronic illnesses, disabilities, and mental health disorders, can disrupt a student's ability to attend classes regularly and complete coursework (Eisenberg et al, 2009).

Limited access to reliable transportation can hinder a student's ability to attend school regularly, especially if they live in areas with inadequate public

transportation or long commutes (Oreopoulos & Salvanes, 2011). Inadequate or unstable housing situations can lead to high levels of stress and distraction for students. Worries about housing security and the quality of living conditions can consume their thoughts and hinder their ability to concentrate on their studies (Herbers et al., 2020). Students who face discrimination or bias based on their race, ethnicity, gender, sexual orientation, or other factors may experience negative psychological and academic consequences, including lower self-esteem and reduced motivation (Steele, 2011).

The table 5.2. provides insights into the challenges faced by individuals in different categories during their education. This information has been derived from a field survey using a Likert scale and assessed on a scale of 1 to 5, where 1 represents very low problems and 5 signifies very high problems. Master's students report relatively low levels of problems in most categories. Financial problems (4.12) are the highest among these students, indicating that managing finances can be a significant challenge. Lower educational quality (3.11) is another concern, suggesting room for improvement in the quality of education they receive. Discrimination (1.23) and health issues (1.39) are relatively low, indicating that these problems are less prevalent among Master's students.

**Table 6.2. Problems faced during education (average Score)**

| Category | Unsupportive families | Financial problems | Transportation | Accommodation | Lower educational quality | Discrimination. | Health Issues |
|---|---|---|---|---|---|---|---|
| Master's students | 1.33 | 4.12 | 2.47 | 2.24 | 3.11 | 1.23 | 1.39 |
| Research Scholars | 1.51 | 3.54 | 2.12 | 1.57 | 2.65 | 1.44 | 1.12 |
| Professors | 1.42 | 4.26 | 3.98 | 2.56 | 2.96 | 1.36 | 1.34 |
| Medical officers | 1.48 | 3.06 | 2.08 | 1.94 | 1.95 | 1.32 | 1.13 |
| Engineers | 1.57 | 3.59 | 3.17 | 2.24 | 3.34 | 1.89 | 1.09 |
| Group-A officers | 1.36 | 4.13 | 3. 79 | 2.67 | 2.15 | 1.16 | 1.10 |
| Business wholesalers | 1.29 | 3.11 | 2. 26 | 1.54 | 1.43 | 1.18 | 1.21 |
| Total | 1.42 | 3.69 | 2.76 | 2.11 | 2.51 | 1.37 | 1.20 |
| *Wherein, 1= very Low, 2=low, 3 medium, 4= high, 5= very high* | | | | | | | |

*Source: Field Survey 2019-2022*

Research scholars face moderate challenges during their education. Financial problems (3.54) are still a concern but are slightly lower compared to Master's students. Transportation (2.12) and accommodation (1.57) are manageable issues. Lower educational quality (2.65) is a concern, and discrimination (1.44) and health issues (1.12) are relatively low.

Professors encounter relatively high challenges in some areas. Financial problems (4.26) are notable, suggesting that financial stability may still be a concern in academia. Transportation (3.98) and accommodation (2.56) are also relatively high, indicating potential issues in these areas. Lower educational quality (2.96), discrimination (1.36), and health issues (1.34) are moderate concerns.

Medical officers report moderate problems during their education. While financial problems (3.06) and transportation (2.08) are challenges, they are manageable. Accommodation (1.94) is relatively low. Lower educational quality (1.95) is a concern, suggesting the need for improvements in the quality of medical education. Discrimination (1.32) and health issues (1.13) are relatively low.

Engineers face moderate challenges in several areas. Financial problems (3.59) and transportation (3.17) are concerns. Accommodation (2.24) is manageable. Lower educational quality (3.34) is a notable issue, suggesting the need for improvements in the quality of engineering education. Discrimination (1.89) and health issues (1.09) are relatively low.

Group-A officers report relatively high challenges, particularly in financial problems (4.13), transportation (3.79), and accommodation (2.67). Lower educational quality (2.15) is a concern, indicating the need for improvements in the quality of education in their field. Discrimination (1.16) and health issues (1.10) are relatively low.

Business wholesalers face relatively low problems during their education. Financial problems (3.11) are a concern, but transportation (2.26) and accommodation (1.54) are manageable. Lower educational quality (1.43) is a moderate concern. Discrimination (1.18) and health issues (1.21) are relatively low.

When considering the total across all categories, financial problems (3.69) emerge as a common challenge. Transportation (2.76) and accommodation (2.11) are also moderate concerns. Lower educational quality (2.51) is an area that could benefit from improvement. Discrimination (1.37) and health issues (1.20) are relatively low overall.

In summary, this analysis provides a detailed examination of the challenges faced by individuals in different categories during their education. While financial problems are a common concern, the nature and extent of other challenges vary across professions. Addressing these challenges can contribute to a more supportive and conducive educational environment for individuals in each category.

### 6.4. Conclusion

From a holistic perspective, family support and financial stability stand out as potent and widespread motivators, with career prospects being another crucial factor in driving motivation. The desire for success is a prevailing influence, as is the sense of societal responsibility. Teachers exert a moderate level of influence on average, while partners play a relatively minor role in motivating individuals in their educational journeys.

When analyzing the problems, it is found that financial issues are a widespread challenge affecting all categories, while transportation and accommodation also pose notable concerns. There is room for improvement in the quality of education, whereas discrimination and health-related problems have a relatively lower overall impact.

Given the strong influence of family support, financial stability, and career prospects as motivators, policies should aim to enhance and facilitate these aspects in educational environments. This could include support for family engagement, financial aid programs, and career development opportunities.

Addressing widespread financial challenges is crucial, and policymakers should focus on creating affordable education options and financial assistance programs to mitigate this concern. Improving transportation and accommodation facilities for students can also enhance the overall learning experience. Efforts to enhance the quality of education should be a priority, as it is identified as an issue across various categories. This may involve curriculum reforms, teacher training, and infrastructure improvements.

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# CHAPTER-7

# CONCLUSION

## 7.1. Introduction

The final chapter encompasses the study's key findings, discusses the policy implications arising from these findings, and provides a comprehensive conclusion for the entire research.

## 7.2. Major Findings

The major findings of the study are classified into different sections based on our objectives of the study.

### 7.2.1. Low female participation in different professions and divorce rate.

1. The Successful Person category generally has a higher average current age compared to the student category, with Business Wholesalers having the highest average age at 48 years and Medical Officers the lowest at 39 years. Additionally, Research Scholars have a slightly higher average current age of 28.23 years compared to Master Students at 28.82 years.
2. The age gap between the youngest master's student and the oldest wholesaler is nearly 20 years.
3. Due to generational shifts in educational awareness and progress over time, the average age at which individuals start school has risen among the younger generation (Students) in comparison to their older counterparts (successful persons).
4. There exists a notable gender imbalance in most professional fields, with the lowest representation of women observed in engineering and business, where men make up 87% of the workforce.

5. Out of the 625 surveyed students, 276 (44.16%) are male, 346 (55.36%) are female, and 3 (0.48%) chose not to disclose their gender. Notably, the data reveals a higher representation of female individuals among students, especially master's students, indicating that in the younger generation within the general field of studies, gender doesn't significantly influence educational enrollment.
6. The overall percentage of divorced individuals in the surveyed population is relatively low at 0.81%, which is notably lower than the state divorce rate of 4.08% reported in the 2011 Census of India.

### 7.2.2. Government School Dominance and good educational performance.

1. Private schools are predominant in lower education levels (HSLC and below), while government institutions dominate at higher education levels up to the master's level. As a result, government schools have the overall majority share in the educational landscape, with government institutions for 66.4%, private institutions accounting for 25.2%, and NGO/Church-run institutions for 8.5% of the surveyed population.
2. The combined average marks achieved by both students and successful individuals are notably high at 66.3%, which corresponds to a first division. When comparing the overall marks across different educational standards, from HSLC to MA, successful individuals tend to have a slightly higher average score of 65.31% in contrast to students, who have an average score of 64.45%.
3. The major findings indicate that English is the dominant medium of education in the surveyed sample (67.85%), particularly among Medical Officers and Engineers, while categories like Professors and Research Scholars exhibit a more balanced distribution between English and Mizo, highlighting potential academic and regional preferences, with Hindi having the lowest overall percentage (0.43%).
4. The language of instruction trends at different education levels reveal that English is the dominant medium, gradually increasing from Primary to High

School, while Mizo experiences a decrease, and Hindi maintains a minority presence throughout, suggesting a consistent preference for English-language education in the surveyed population, particularly at the High School level.

### 7.2.3. Socio-Spatial Background and Status

1. Business wholesalers tend to have the largest average family size at 7.32, while master's students have the smallest at 5.78; engineers have the highest average number of siblings at 4.93, and master's students have the lowest at 3.49. This indicates the generational decline of a family size due to various factors.
2. Fathers of different professions have diverse educational backgrounds. Medical Officers' fathers have a substantial percentage of Graduate and Post Graduate degrees (45.45%). Across all categories, fathers with Professional degrees or Ph.Ds represent 5.97%, while the most common qualification among fathers is Graduate and Post Graduate degrees at 32.30%. while, the most common education level among mothers is High School Leaving Certificate (34.84%), followed by Graduate and Post Graduate degrees (13.22%).
3. Government service occupations in Groups A & B make up 26.51% of all fathers, while Group C & D government servants constitute 16.23%. Small business and shop ownership represents 13.00%, and farming is a significant occupation at 19.46%. Skilled workers account for 11.59%, while church workers and the "Others" category make up 7.16% and 6.05%, respectively.
4. "Housewives" comprise the largest group among mothers Occupation at 44.46%, while "Small business/shop-owners" make up 22.08%. while "Church workers" and "Farmers" have lower percentages at 2.22% and 3.13% among all mothers.
5. The majority of parents (83.87%) are "Married," while "Divorced" parents constitute 14.11%, and "Single (Due to death)" parents make up 2.02% of the total, surpassing the state divorce rate of 4.08% reported in the 2011 Census of India.

6. The highest average monthly income is observed among parents of Business Wholesalers, reaching 43,271.23 rupees, reflecting the financial success of entrepreneurial parents in the trade sector despite a lower representation in government jobs, followed by Medical Officers with 33,607.95 rupees. Master's students and Research Scholars have average parental incomes of 30,804.97 and 29,793.43 rupees, respectively. Parents of Professors have the lowest income at 21,093.74 rupees.
7. In the Students category, there is a near-balanced distribution of urban backgrounds and rural backgrounds. However, Business Wholesalers and Medical Officers have significant urban dominance, with 80% and 64.77% coming from urban areas, respectively. In contrast, Professors and Group-A Officers show rural dominance, with 61.59% and 60.87% from rural backgrounds.
8. Business Wholesalers have the highest socio-spatial status, followed by Medical Officers, with Master's Students coming next. Research Scholars have a somewhat lower socio-spatial status, followed by Engineers. Group-A Officers and Professors are further down the list, indicating a relatively lower status compared to the previous categories.

#### 7.2.4. Money as a motivation as well as a problem

1. The primary motivators across all categories are family support, financial stability, career prospects, and societal responsibility. Teachers have a moderate influence, while partners play a smaller role.
2. Across all categories, financial problems are a common challenge. Transportation and accommodation are moderate concerns. Lower educational quality is an area for improvement, while discrimination and health issues are relatively low overall.
3. Professors and Master's students experience relatively higher financial hardships in their educational journeys as compared to the other categories.

### 7.3. Policy Implications

1. Addressing the gender imbalance in professional fields, particularly in engineering and business, requires focused initiatives to promote gender diversity, create inclusive workplaces, and encourage women's participation in these sectors.
2. Policymakers should consider effective oversight and quality control mechanisms for private schools, especially at lower education levels, to ensure that they maintain high educational standards and affordability.
3. Policymakers should consider effective oversight and quality control mechanisms for private schools, especially at lower education levels, to ensure that they maintain high educational standards and affordability.
4. Given the generational decline in family size and sibling numbers, due to the small population of the study area, policymakers can encourage family planning and provide education on the benefits of smaller families. This can include initiatives related to reproductive health and family welfare.
5. Given the significant percentage of "Housewives" among mothers, policies should focus on empowering and supporting women who choose to focus on homemaking. Initiatives related to financial literacy, skill development, and social support can be beneficial.
6. Policymakers should recognize the urban-rural distribution among different categories. This knowledge can inform regional development strategies, infrastructure improvements, and rural upliftment programs.
7. Understanding the socio-spatial status of different categories can help policymakers address disparities in access to resources and opportunities. Policies focusing on social and economic inclusion can promote a more equitable society.
8. Addressing financial challenges, requires policies that offer financial aid, scholarships, or income support programs. Additionally, improving access to affordable transportation and accommodations can alleviate some of the challenges faced by students and professionals.

9. The need for improved educational quality is evident. Policies should prioritize investments in educational infrastructure, teacher training, and curriculum development to enhance the overall quality of education across categories.

### 7.4. Conclusion

In conclusion, the study on socio-spatial variation in educational attainment and success in Mizoram has shed light on the complex interplay of factors that shape the educational and professional trajectories of individuals in this region. Our findings have revealed several noteworthy patterns and trends, emphasizing the importance of considering not only individual attributes but also broader social, economic, and geographical contexts in understanding educational outcomes and success.

One of the key findings of this study is the dominance of government educational institutions at higher levels of education, contrasting with private schools' prevalence in lower education levels. This underscores the need for policy interventions that focus on improving the quality of government schools at the primary and middle levels, while also addressing the financial and infrastructural constraints faced by private institutions.

Furthermore, our research has highlighted the relatively high average marks and academic achievements among both students and successful individuals, emphasizing the region's commitment to education. This finding calls for sustained efforts to maintain and enhance the quality of education at all levels.

The study has also unveiled linguistic and regional preferences in the choice of the medium of education, with English emerging as the dominant language, especially at the high school level. This suggests the need for policies that encourage multilingualism and preserve regional languages while maintaining a strong emphasis on English for academic and professional advancement.

In terms of family structures and backgrounds, our findings have revealed diverse family sizes and educational backgrounds among different professional categories. These variations underscore the importance of providing equitable access to quality education and opportunities for all individuals, regardless of their family backgrounds.

The gender imbalance observed in several professional fields, particularly in engineering and business, highlights the need for policies that promote gender diversity and inclusion, both in educational institutions and workplaces.

Our analysis of income levels has shown disparities among parents of different professional categories, with business wholesalers exhibiting the highest average monthly income. This highlights the significance of initiatives that address income inequality and financial support for education, particularly among those with lower income backgrounds.

Finally, our study has pointed out the challenges and motivators in educational journeys, underscoring the need for policies that address financial hardships, enhance educational quality, and support individuals in overcoming challenges such as discrimination and health issues.

In conclusion, the socio-spatial variation in educational attainment and success in Mizoram is a multifaceted phenomenon influenced by a range of factors. The findings of this study provide valuable insights for policymakers, educators, and stakeholders in the region to design and implement strategies that promote equitable access to quality education, enhance academic and professional opportunities, and ensure the well-being and success of individuals, irrespective of their socio-spatial backgrounds. Ultimately, these efforts can contribute to the overall development and prosperity of Mizoram and its diverse population.

## APPENDICES

### Appendix-A: Schedule for Survey

The Survey is about the background analysis of Students and Successful Persons and is purely intended for research purposes. Participation is completely voluntary. The responses will be kept confidential.

Tick anyone:

(a) Master Student (b) Research Scholars (c) College and University teachers
(d) Medical officers (e) Engineers (f) Group-A officers

(g) Business wholesalers

Institution (for students): _____

**A. Demographic Profile**

1. AGE: Current_____, Age of Schooling_____, age of joining Profession___

2. SEX: ☐ Male ☐ Female ☐ Others

3: MARITAL STATUS: ☐ Married ☐ Unmarried ☐ Divorced

**B. Locational Information**

1. Name of the place of Origin: _____ (Rural/Urban)

2. Is it a District capital? ☐ Yes ☐ No

3. How many years did you stay in your village/town/city: _____

4. What is your age when you study abroad? _____

**C. Family Information**

1. Number of Family Members: _____

2. Number of Siblings: _____

3. Parent's Relationship Status: ☐ Married ☐ Unmarried ☐ Divorced

4. Father's Educational Qualification: _____

5. Mother's Educational Qualification: __ _____

6. Father's Occupation: _____

7. Mother's Occupation: _____

8. Family Income: _____

9. House Type: _____

10. Number of four-wheel vehicles owned: _____

11. Number of House Owned: _____

12. Number of Land Owned_____

**D. Educational Information**

1. Mark Obtain in %: HSLC_____, HSSLC_____, UG_____, PG_____

2. Medium of Instruction (tick in the box)

| | Mizo | English | Hindi |
|---|---|---|---|
| a) Primary | | | |
| b) Middle | | | |
| c) High School | | | |

3. Nature of Institution (tick in the box)

| | Government | Private | Adhoc/aided | Ngo/Church |
|---|---|---|---|---|
| a) Primary | | | | |
| b) Middle | | | | |
| c) High School | | | | |
| d) Higher | | | | |
| e) UG | | | | |
| f) PG | | | | |

4. Distance of Institution from home (in Kms) (tick in the box)

| | 0-1 | 1-2 | 2-3 | 3-4 | Above-4 | Outside state |
|---|---|---|---|---|---|---|
| a) Primary | | | | | | |
| b) Middle | | | | | | |
| c) High School | | | | | | |
| d) Higher | | | | | | |
| e) UG | | | | | | |
| f) PG | | | | | | |

**E. Motivation and problems.**

1. Motivation (tick in the box)

| | Very low | low | average | high | Very high |
|---|---|---|---|---|---|
| a) Family support | | | | | |
| b) Financial stability | | | | | |
| c) Career and job | | | | | |
| d) Service to society | | | | | |
| e) Teachers Motivation | | | | | |
| f) Partners Motivation | | | | | |

2. Problems (tick in the box)

| | Very low | low | average | high | Very high |
|---|---|---|---|---|---|
| a) Unsupportive families | | | | | |
| b) financial | | | | | |
| c) Transportation | | | | | |
| d) Accommodation | | | | | |
| e) Lower educational quality | | | | | |
| f) Discrimination. | | | | | |
| g) Health Issues | | | | | |

Comments:_____

_____

_____

_

## Appendix B: Descriptive Statistics for ANOVA of Successful Person

| Descriptive Statistics | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
| | | | | | Lower Bound | Upper Bound | | |
| Professors | 151 | 62.6093 | 7.00474 | .57004 | 61.4829 | 63.7356 | 41.00 | 79.00 |
| Medical Doctors | 88 | 69.2273 | 6.36031 | .67801 | 67.8797 | 70.5749 | 52.00 | 83.00 |
| Engineers | 62 | 69.1452 | 7.12844 | .90531 | 67.3349 | 70.9554 | 58.00 | 85.00 |
| Group A Oficers | 46 | 65.0413 | 5.68274 | .83788 | 63.3537 | 66.7289 | 56.00 | 84.00 |
| Business Wholesalers | 20 | 60.5100 | 6.56641 | 1.46829 | 57.4368 | 63.5832 | 46.20 | 73.00 |
| Total | 367 | 65.4907 | 7.40465 | .38652 | 64.7307 | 66.2508 | 41.00 | 85.00 |

## Appendix C: Z Score Normalised Indicators of Socio-Spatial Status

| Indicators | Master's students | Research Scholars | Professors | Medical officers | Engineers | Group-A officers | Business wholesalers |
|---|---|---|---|---|---|---|---|
| ZM_Parents | -0.86578 | -0.74594 | 1.75601 | 0.36441 | 0.54539 | -1.08589 | 0.03179 |
| ZF_Education | -0.53849 | -0.8618 | -0.82123 | 1.91868 | 0.05615 | 0.66093 | -0.41424 |
| ZM_Education | 0.03434 | 0.74396 | -0.90287 | 1.87423 | -0.83127 | -0.41061 | -0.50778 |
| ZFam_Struc | 1.114 | 0.44543 | -0.98933 | 0.69393 | -1.56028 | -0.40951 | 0.70576 |
| ZIncome | 0.29312 | -0.09881 | -1.17867 | 0.8644 | -0.76416 | -0.7397 | 1.62381 |
| ZH_type | 0.82331 | -1.77883 | -0.42856 | 0.36144 | 0.12548 | -0.39564 | 1.2928 |
| ZWheel | 0.50615 | 0.41637 | -1.68091 | 0.35413 | 0.15873 | -1.00954 | 1.25507 |
| ZE_Primary | 1.37207 | 0.90165 | -0.39202 | 0.27441 | 0.01307 | -1.68569 | -0.48349 |
| ZE_middle | 1.37207 | 0.90165 | -0.39202 | 0.27441 | 0.01307 | -1.68569 | -0.48349 |
| ZE_High | 1.37207 | 0.90165 | -0.39202 | 0.27441 | 0.01307 | -1.68569 | -0.48349 |
| ZUrban | -0.2333 | 0.09759 | -0.97912 | 0.77937 | -0.52882 | -0.93109 | 1.79537 |
| ZD_Capital | -0.27833 | -0.01587 | -0.8699 | 0.52491 | -0.51274 | -0.83181 | 1.98374 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ZOutside_State | -1.15926 | -1.17972 | -0.73591 | 1.23057 | 0.78754 | 0.65062 | 0.40616 |
| ZInstitution_P_D | -0.57887 | -0.13875 | -1.9599 | 0.6329 | 0.61656 | 0.66909 | 0.75898 |
| ZInsti_M_D | -0.57305 | -0.12865 | -1.96753 | 0.65051 | 0.63401 | 0.68705 | 0.69766 |
| ZInst_H_D | -0.61048 | -0.25562 | -1.724 | 0.36656 | 0.35338 | 0.39574 | 1.47443 |

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# ABSTRACT

# INFLUENCE OF SOCIO-SPATIAL VARIATION ON EDUCATIONAL ATTAINMENT AND SUCCESS IN MIZORAM

**AN ABSTRACT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY**


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**SCHOOL OF EARTH SCIENCES & NATURAL RESOURCES MANAGEMENT**


**JUNE, 2024**

# INFLUENCE OF SOCIO-SPATIAL VARIATION ON EDUCATIONAL ATTAINMENT AND SUCCESS IN MIZORAM

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**In partial fulfillment of the requirement of the Degree of Doctor of Philosophy in Geography and Resource Management of Mizoram University, Aizawl.**

The educational Achievements and Success of an individual are highly influenced by his or her life's history and background. A life course approach, also known as life course theory, is the study of a person's life history and the investigation of how early events influenced decisions and events such as marriage and divorce, criminal activity, the incidence of disease, or success rate and level of educational attainment in the future. The present study adopted this approach to learn and analyse the relationship between a person's life history and his or her present achievements.

Different studies in different places have shown that the different aspects of personal background such as One's birthplace and childhood residence, Parents' educational level, Occupation, Income, and family structure have highly influenced educational attainment and success of one's life. Specifically, a Parent's income and wealth have a great influence on one's level of educational attainment and success.

Hällsten and Pfeffer discovered that the distribution of opportunity across many generations is significantly impacted by the inequality of family wealth, even in a relatively egalitarian setting like Sweden. However, the majority of the research was conducted in wealthy nations like the United States and Europe, where family money makes access to and quality of education easily affordable.

Therefore, it is interesting to study the influences of personal background and parent's occupation on one's life course in the tribal society of Mizoram where the range of personal background and price of education is low compared to them. Besides the above factors, one's level of educational attainment and success can be highly influenced by different factors such as the type of school during elementary and secondary classes, School attendance, Gender, and ethnicity (Considine and Zappala, 2002). All these different aspects of living mould one's life course and lead him/her to success and failure. Therefore, this study will try to delineate an ideal path to follow to attain a higher educational level and success.

Most previous studies were mainly focused on Socioeconomic conditions, while the spatial factors have been widely neglected. In the study area, numerous individuals have achieved success in various domains. However, this research

specifically focuses on individuals who have attained success in the field of education. The aim of this study is to explore the underlying factors contributing to the success of these individuals in the study area. This investigation is intended to provide insights that can be used to recommend appropriate measures for enhancing the overall success rate within the study area, particularly in the realm of education.

Mizoram the study area is the southernmost landlocked state in the northeastern region and shares borders with Tripura, Assam, and Manipur, which are three of the Seven Sister States. It also has boundaries with Bangladesh and Myanmar, covering a total length of 722 kilometres.

Mizoram's education system is managed by both state and central governments, as well as private organizations. The medium of instruction in most schools is Mizo and English. Students who pass the Higher Secondary Examination (equivalent to grade 12) can pursue general or professional degree programs following the 10+2+3 educational model. Mizoram is home to various educational institutions, including the Central University (Mizoram University), the National Institute of Technology Mizoram, and the ICFAI University (affiliated with the Institute of Chartered Financial Analysts of India). Additionally, the Mizoram Institute of Medical Education and Research (MIMER), established in 2018, is a medical school offering 100 seats for the MBBS program.

As required by our objectives, samples have been taken from two different groups- Students from different institutions and Successful persons based on professions. By considering 20% of the population as samples from every department from the two universities, 482 Samples for Master students were collected. And 143 samples of Research Scholars were taken from Mizoram University including every department which is 20% of the total research Scholar. Then, the total sample collected was 625 students. The total Samples collected for the Successful persons were 151 Professors, 88 Medical Doctors, 62 Engineers, 46 Group A Officers, and 20 Business Wholesalers making a total sample of 367 successful persons. The total number of samples collected for this study including the students and successful persons was 992 Samples.

ANOVA, Principal Component Analysis (PCA), Factor Analysis (FA), Student's T test, and Z score standardization techniques have all been used to statistically analyse the data that has been gathered.

The major findings of the study are classified into different sections based on our objectives of the study.

**1. Low female participation in different professions and divorce rate.**

1. The Successful Person category generally has a higher average current age compared to the student category, with Business Wholesalers having the highest average age at 48 years and Medical Officers the lowest at 39 years. Additionally, Research Scholars have a slightly higher average current age of 28.23 years compared to Master Students at 28.82 years.
2. The age gap between the youngest master's student and the oldest wholesaler is nearly 20 years.
3. Due to generational shifts in educational awareness and progress over time, the average age at which individuals start school has risen among the younger generation (Students) in comparison to their older counterparts (successful persons).
4. There exists a notable gender imbalance in most professional fields, with the lowest representation of women observed in engineering and business, where men make up 87% of the workforce.
5. Out of the 625 surveyed students, 276 (44.16%) are male, 346 (55.36%) are female, and 3 (0.48%) chose not to disclose their gender. Notably, the data reveals a higher representation of female individuals among students, especially master's students, indicating that in the younger generation within the general field of studies, gender doesn't significantly influence educational enrollment.
6. The overall percentage of divorced individuals in the surveyed population is relatively low at 0.81%, which is notably lower than the state divorce rate of 4.08% reported in the 2011 Census of India.

**2. Government School Dominance and good educational performance.**

1. Private schools are predominant in lower education levels (HSLC and below), while government institutions dominate at higher education levels up to the master's level. As a result, government schools have the overall majority share in the educational landscape, with government institutions for 66.4%, private institutions accounting for 25.2%, and NGO/Church-run institutions for 8.5% of the surveyed population.
2. The combined average marks achieved by both students and successful individuals are notably high at 66.3%, which corresponds to a first division. When comparing the overall marks across different educational standards, from HSLC to MA, successful individuals tend to have a slightly higher average score of 65.31% in contrast to students, who have an average score of 64.45%.
3. The major findings indicate that English is the dominant medium of education in the surveyed sample (67.85%), particularly among Medical Officers and Engineers, while categories like Professors and Research Scholars exhibit a more balanced distribution between English and Mizo, highlighting potential academic and regional preferences, with Hindi having the lowest overall percentage (0.43%).
4. The language of instruction trends at different education levels reveal that English is the dominant medium, gradually increasing from Primary to High School, while Mizo experiences a decrease, and Hindi maintains a minority presence throughout, suggesting a consistent preference for English-language education in the surveyed population, particularly at the High School level.

**3. Socio-Spatial Background and Status**

1. Business wholesalers tend to have the largest average family size at 7.32, while master's students have the smallest at 5.78; engineers have the highest average number of siblings at 4.93, and master's students have the lowest at 3.49. This indicates the generational decline of a family size due to various factors.

2. Fathers of different professions have diverse educational backgrounds. Medical Officers' fathers have a substantial percentage of Graduate and Post Graduate degrees (45.45%). Across all categories, fathers with Professional degrees or Ph.Ds represent 5.97%, while the most common qualification among fathers is Graduate and Post Graduate degrees at 32.30%. while, the most common education level among mothers is High School Leaving Certificate (34.84%), followed by Graduate and Post Graduate degrees (13.22%).
3. Government service occupations in Groups A & B make up 26.51% of all fathers, while Group C & D government servants constitute 16.23%. Small business and shop ownership represents 13.00%, and farming is a significant occupation at 19.46%. Skilled workers account for 11.59%, while church workers and the "Others" category make up 7.16% and 6.05%, respectively.
4. "Housewives" comprise the largest group among mothers Occupation at 44.46%, while "Small business/shop-owners" make up 22.08%. while "Church workers" and "Farmers" have lower percentages at 2.22% and 3.13% among all mothers.
5. The majority of parents (83.87%) are "Married," while "Divorced" parents constitute 14.11%, and "Single (Due to death)" parents make up 2.02% of the total, surpassing the state divorce rate of 4.08% reported in the 2011 Census of India.
6. The highest average monthly income is observed among parents of Business Wholesalers, reaching 43,271.23 rupees, reflecting the financial success of entrepreneurial parents in the trade sector despite a lower representation in government jobs, followed by Medical Officers with 33,607.95 rupees. Master's students and Research Scholars have average parental incomes of 30,804.97 and 29,793.43 rupees, respectively. Parents of Professors have the lowest income at 21,093.74 rupees.
7. In the Students category, there is a near-balanced distribution of urban backgrounds and rural backgrounds. However, Business Wholesalers and Medical Officers have significant urban dominance, with 80% and 64.77% coming from urban areas, respectively. In contrast, Professors and Group-A

Officers show rural dominance, with 61.59% and 60.87% from rural backgrounds.

8. Business Wholesalers have the highest socio-spatial status, followed by Medical Officers, with Master's Students coming next. Research Scholars have a somewhat lower socio-spatial status, followed by Engineers. Group-A Officers and Professors are further down the list, indicating a relatively lower status compared to the previous categories.

**4. Money as a motivation as well as a problem**

1. The primary motivators across all categories are family support, financial stability, career prospects, and societal responsibility. Teachers have a moderate influence, while partners play a smaller role.
2. Across all categories, financial problems are a common challenge. Transportation and accommodation are moderate concerns. Lower educational quality is an area for improvement, while discrimination and health issues are relatively low overall.
3. Professors and Master's students experience relatively higher financial hardships in their educational journeys as compared to the other categories.

The study on socio-spatial variation in educational attainment and success in Mizoram has shed light on the complex interplay of factors that shape the educational and professional trajectories of individuals in this region. Our findings have revealed several noteworthy patterns and trends, emphasizing the importance of considering not only individual attributes but also broader social, economic, and geographical contexts in understanding educational outcomes and success.

One of the key findings of this study is the dominance of government educational institutions at higher levels of education, contrasting with private schools' prevalence in lower education levels. This underscores the need for policy interventions that focus on improving the quality of government schools at the

primary and middle levels, while also addressing the financial and infrastructural constraints faced by private institutions.

Furthermore, our research has highlighted the relatively high average marks and academic achievements among both students and successful individuals, emphasizing the region's commitment to education. This finding calls for sustained efforts to maintain and enhance the quality of education at all levels.

The study has also unveiled linguistic and regional preferences in the choice of the medium of education, with English emerging as the dominant language, especially at the high school level. This suggests the need for policies that encourage multilingualism and preserve regional languages while maintaining a strong emphasis on English for academic and professional advancement.

In terms of family structures and backgrounds, our findings have revealed diverse family sizes and educational backgrounds among different professional categories. These variations underscore the importance of providing equitable access to quality education and opportunities for all individuals, regardless of their family backgrounds.

The gender imbalance observed in several professional fields, particularly in engineering and business, highlights the need for policies that promote gender diversity and inclusion, both in educational institutions and workplaces.

Our analysis of income levels has shown disparities among parents of different professional categories, with business wholesalers exhibiting the highest average monthly income. This highlights the significance of initiatives that address income inequality and financial support for education, particularly among those with lower income backgrounds.

Finally, our study has pointed out the challenges and motivators in educational journeys, underscoring the need for policies that address financial hardships, enhance educational quality, and support individuals in overcoming challenges such as discrimination and health issues.

In conclusion, the socio-spatial variation in educational attainment and success in Mizoram is a multifaceted phenomenon influenced by a range of factors. The findings of this study provide valuable insights for policymakers, educators, and stakeholders in the region to design and implement strategies that promote equitable access to quality education, enhance academic and professional opportunities, and ensure the well-being and success of individuals, irrespective of their socio-spatial backgrounds. Ultimately, these efforts can contribute to the overall development and prosperity of Mizoram and its diverse population.