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## URBAN MOBILITY

AND PERSONAL SAFETY AS FACTORS RELATED TO THE DECISION OF DROPPING OUT FROM UNIVERSITY

**MOVILIDAD URBANA Y SEGURIDAD PERSONAL COMO FACTORES RELACIONADOS CON LA DECISIÓN DE ABANDONAR LA UNIVERSIDAD**

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### ABSTRACT

Urban development of Latin American cities has an unplanned and heterogeneous growth that stands out and feeds the social and economic inequalities that its citizens face every day when traveling to their productive destinations. The objective of this paper is to discuss the progressive evolution of the metropolitan transformation of Panama City and its peripheries, its residential and urban mobility, and the effect these have on university dropouts. Urban mobility is related to the displacement exercised by the people of a city and is directly linked to the improvement of their quality of life. As the city expands, university students assess their priorities in life, including continuing their education or dropping out, in relation to residential and urban mobility issues that highlight difficulties such as transportation, distances and personal safety. From the methodological point of view, this paper uses a qualitative approach. Through an empirical analysis of in-depth interviews carried out with active senior university students at the University of Panama, I seek to explore, describe and give some perspective to the intention of dropping out from university as connected to transportation, distances and personal safety matters.

**Keywords:** Urban mobility, residential mobility, university dropout, transportation, distances, personal safety.

### RESUMEN

El desarrollo urbano de las ciudades latinoamericanas tiene un crecimiento heterogéneo y no planificado que destaca y alimenta las desigualdades sociales y económicas que sus ciudadanos enfrentan día a día cuando viajan a sus destinos productivos. El objetivo de este trabajo es discutir la evolución progresiva de la transformación metropolitana de la ciudad de Panamá y sus periferias, su movilidad residencial y urbana, y el efecto que tienen en la deserción universitaria. La movilidad urbana está relacionada con el desplazamiento que ejercen las personas de una ciudad y está directamente ligada a la mejora de su calidad de vida. A medida que la ciudad se expande, los estudiantes universitarios evalúan sus prioridades en la vida, incluida la continuación de su educación o la deserción, en relación con problemas de movilidad residencial y urbana. Estos problemas resaltan dificultades como el transporte, las distancias y la seguridad personal. Desde el punto de vista metodológico, este artículo utiliza un enfoque cualitativo. A través de un análisis empírico de entrevistas a profundidad realizadas a estudiantes universitarios activos cursando su último año de la carrera en la Universidad de Panamá, busco explorar, describir y dar alguna perspectiva a la intención de abandonar la universidad en relación con el transporte, las distancias y los asuntos de seguridad personal.

**Palabras clave:** Movilidad urbana, movilidad residencial, deserción universitaria, transporte, distancias, seguridad personal.

## INTRODUCTION

Mobility and transportation are aspects of our daily life that have an effect on our decisions and thus, in our life priorities. Urban mobility is, therefore, a fundamental element to achieve accessibility to productive places. Indeed, mobility determines both the size of agglomeration economies and the magnitude of congestion costs. Mobility difficulties prevent people from accessing the best jobs available and firms from hiring the best-trained workforce, thus reducing the productivity of the entire city. Moreover, poor mobility is one of the main causes of congestion costs, including vehicular traffic, environmental pollution, road accidents and other phenomena that negatively affect the well-being of the population (Giuliano, et al., 2019). According to Daude, et al. (2017), the CAF (Development Bank of Latin America) establishes an average of 75% of Latin Americans who use public transport to reach their productive places feel dissatisfied in terms of service, frequency, travel time and vehicle insecurity.

As Panama City expands, mobility takes on new dimensions. Panama City is distinguished as being residential in the periphery and having the main work activities in the center of its metropolitan area. The development of Panama's metropolitan area has been set up in a poorly planned expansion, where the real estate market, lacking in effective planning, influences urban development. This unbalanced development has been typical of the last decades with disproportionate increases in urban land costs. Therefore, people face difficulties in their mobility, with long journeys to work and study centers on a daily basis (World Bank Group, 2007).

The concern about the urban mobility problem has reached the highest levels of government, opening the compass for projects such as The MetroBus system and the new Metro de Panama; specifically developed to improve mobility conditions within the metropolitan area, which includes the districts of Panama and San Miguelito, and in the future, Panama Oeste (Orbea, 2021). Transportation problems are more likely to occur due to long distances and heavy traffic between home, workplace and university, the saturation of the few existing roads; also due to lack of safety during peak hours, in the early morning or late at night.

University students also face these same issues while attending university and their jobs. Sometimes, these issues also tackle their desire to continue their studies. Previous studies on University dropout in Panama (Escobar, et al., 2005; Calderón Pimentel, 2013; Sánchez, 2015; Díaz & Tejedor, 2018; Barsallo Alvarado, 2019) evidence different causes to it that include economic, social, academic and

institutional factors related to education; and some other factors that are totally unrelated to education itself such as family situations, cultural and psychological factors. And, although it depends on the unique needs of every student's reality, these factors are indistinct on their place of residence or their mobility situation (Weuffen, et al., 2021).

However, there is one study that claims that distances and transportation are determinants on university students' dropout decision (Barsallo Alvarado, 2019). This study is based on a cohort of college dropouts from 2001 to 2010. The results show that 20% of college dropouts surveyed faced the same situation, that is, transportation difficulties and had to travel long distances to their productive places. Calderón Pimentel (2013), documented this situation and provided firsthand information about attendance and commuting times. In addition, there are also personal safety issues related to the situation to take into consideration. However, the relationship between these factors and college dropouts has not been thoroughly studied.

Through an empirical analysis of in-depth interviews carried out with active senior university students at the University of Panama, I seek to explore, describe and give some perspective to the intention of dropping out from university as connected to transportation, distances and personal safety matters.

## MATERIALS AND METHODS

This research starts from the premise that urban mobility and safety are concomitant factors that influence university dropout in Panama. In order to explore these thoughts, this study was performed with the aim of not only collecting information on experiences and attitudes but also giving some perspective to the connection between university dropouts and urban mobility, transportation and personal safety matters.

A phenomenological approach was used to gain a thorough understanding of the issues (Moser & Korstjens, 2017). By using an in-depth interview, which pointed out topics such as place of residence, transportation means, costs and experiences, and intention to drop out, senior students at the University of Panama residing in the District of Panama and Panama Oeste were conveniently selected. In view of the fact that at the time of this study most University students did not attend classes due to the pandemic restrictions, 8 seniors or thesis students were invited to participate in the interview, and only 5 agreed. Students who did not comply were excused due to time and work limitations.

The participants signed an ethical consent prior to their interview confirming their anonymous participation in the study and the confidential management of their contributions. The interviews were audiotaped, transcribed verbatim, and were then analyzed for thematic contents by the standard content analysis framework.

## RESULTS AND DISCUSSION

After analyzing the participant's contributions on their mobility issues while being a university student, different topics came up as follow:

### A. Means of transportation, distances and time.

The interviewed students commented on where they live (residence location in Panama City), indicating that three of them live on the outskirts of Panama City and one in the province of Panama Oeste. Of those who live in Panama City, two live in the northern area and one in the eastern area.

Students commented on their multiple commutes to and from their productive locations. The four students study at the University of Panama and three of them work at this same institution as well. The student from the eastern area of Panama City tells us that she travels by car with her father in the morning, using the highway (Corredor Sur). This travel takes, depending on the weather and unforeseen events, between half an hour to one hour to reach her destination. The interviewee compares this to the times that she has had to travel by bus, where she must take two to three different buses and other occasions when she chooses to take the Metro and has to walk 20 minutes or more to reach her destination. Thus, she prefers to take Metrobus to be able to rest during the trip.

The students from the northern area of Panama City explain that the shortest transportation time to the productive place varies between one to two hours, outside of peak hours. One adds that, due to the poor condition of the access roads to the highway, she must add 45 more minutes to her journey and that there is no way to get rid of the roadblock outside of rush hour because of the distance. They use long distance Buses, Metrobus and Taxis.

One of the students from Panama Oeste states that he must wake up at 3am since he must take up to three buses whose trajectory takes approximately 2 to 2.5 hours, which increases with inclement weather and unforeseen events. The student uses long-distance buses and Metrobus. This student explains his travel on his way back home: *"I have lasted up to three hours on my return trip. In the morning, I know that in 2 hours I can get to work but I don't know about the evening. It may be that there was an accident, it*

*is raining, all that makes a traffic jam or a roadblock?"* (Male student from Panama Oeste)

Students from the northern region of Panama City and Panama Oeste, agree that long-distance transportation from other provinces to the city center is more practical and affordable.

These experiences concur with what Calderón Pimentel (2013), said on students that travel from home to university and vice versa may take about three hours a day. Hence, a student that also works may take even more time spent only in transportation, which is a waste of time with respect to production. Ersing, et al. (2009), claim that students that have to travel long distances are prone to drop out because the time they use for their personal and academic activities is limited because of the amount of time lost while striving to get from one place to another.

### B. Commuting costs and other expenses

The ability to access employment opportunities, social services and amenities depends, largely, on the ability of people to move within the city. This is why, depending on where the home is located, priorities in life such as education, can always change.

The students commented that they spend from \$ 5 to \$10 a day, financed with their own resources, to be able to get around and eat. They assure that working at the university with a reduced schedule and being able to take advantage of the low-cost student menus offered by the institution always helps. One student says: *"I spend \$5 to \$7 sometimes and if I have to eat in the street ... because there is no cheap food and now with the pandemic it has been difficult for the university to provide us with food; then it is more expensive. Per day, I can spend around \$10"* (Female student from northern Panama City)

The issue of food becomes difficult in times of a pandemic, coupled with the long distances to reach the productive place. To this, Nelson, et al. (2016), explain that there is a negative association between distance and performance which asserts that as commuting distances increase, the student is likely to drop out from his studies.

### C. Changing the place of residence

Three of the students commented on making attempts to move closer to the University. The student from Panama Oeste mentioned that he was living in an apartment at a walking distance of 15 minutes from the university where he did not use transportation and it was a less dangerous place, where he made better use of his time due to the shorter distance. The rent was equivalent to what he now spends on transportation.

Another student from the northern area shared that her parents attempted to buy an apartment in the center of the city, but they were unable to get the appropriate bank financing. The rent or monthly payment of this apartment was equivalent to what he now pays for transportation plus maintenance and services. The student from the eastern area had the opportunity to move closer to the center of the city, but she did not do so due to parental attachment. As for time matters, another student commented: [When you live far away from the city, there are countless unexpected events that do not allow you to have a daily schedule of activities that is not affected.] (Male student from Panama Oeste)

#### D. Personal safety

In addition to transportation and distance problems, there are also problems of personal safety. Safety is the impression of being safe and feeling protected from what can harm us. It is a common thought to consider the possibility of moving to a place nearby university campus as a way to look forward to personal safety (De Vries, 2013). This personal safety issue is also supported by the assumption that it is not only the place in which a person lives, but also the time and place for commuting (Barsallo Alvarado, 2019). One of the students comments on this issue: *“Before taking the bus, you get stressed because you know that you are going to be robbed. Before the Metro was built, I used to take Metrobus and commuted in San Miguelito, and there my cell phone was stolen three times at about 3 or 4 in the afternoon, at rush hour. They open your bag and take your wallet and cell phone out”*. (Female student from eastern Panama City)

Another student said: *“You say you read while you are on the bus. I have wanted to read how others do it but I am not distracted because they steal on buses, and quite a lot”*. (Male student from Panama Oeste)

To these students, personal safety has always been a concern and said that in the long or short distance buses they steal; and in the place of departure, transfer and arrival as well. They added that this issue occurs more at peak hours that go from 3pm to 7pm.

#### E. Emotions and health

It should be pointed out that the respondents repeatedly referred to exhaustion and how the long distances they have to travel to reach their productive place affect their physical and mental health. In addition, although people who have been living in the suburbs are used to this situation, it will also affect their performance and even their personal affairs. Hunter & Devine (2016), considered exhaustion as a key aspect influencing the decision to drop out. To this, one student commented: “The difference between

living nearby and where I live now is that I could create a time schedule for my things. It's like you're already on automatic. You do not know whether to fall asleep or continue doing the things that you have pending for the next day”. (Male student from Panama Oeste)

Another student said: *“I arrive at home and I don't want to know about anything. I just want to lie down. That's it”*. (Female student from eastern Panama City)

Respondents concluded that transportation and distances also affect their emotions, specifically their mood. They added that, due to the distances, they could only have work in the university for the moment. Besides their own sacrifices, some of them have received help at the institution in terms of finding a job. One of the students remarked: *“People prefer to eat than to study. They choose to work first. I could have two jobs and have money but because of the distances, I can only have one”*. (Female student from northern Panama City)

Bozick (2007), believes that the limited time full-time or even part-time students have, forces them to make decisions based on their own priorities. These situations involve changes in academic and personal life styles, or in this case, dropping out from their studies.

#### F. Other

Although transportation, distances, and security are aspects that influence dropout, these are aspects of lesser importance compared to the economic and institutional aspects. However, the sum of all kinds of circumstances can lead to ideas or intentions to drop out from studies. For example, students admitted that they have considered dropping out in their early years at university for reasons related to transportation, distances, and safety, but these were not their main reasons. One of the students considered changing careers to a less complicated one. Another student considered dropping out due to institutional problems related to professor's attendance and performance; emphasizing that he has not dropped out because he recognizes the need for a certification of studies in order to get better job status in the future.

Herbas, et al. (2019), state that there is the probability of dropping out increases when the students have significant personal problems and university services do not when the student experiences many personal problems, and they do not perceive university services as effective as expected. Given the amount of pressure a student has in their life, intention to leave was found also related to life satisfaction (Duque, 2014). Students have to deal with a lot of aspects related to their satisfaction and achievement such as keeping a job that allows them to continue

studying, fulfilling their family needs and not only attending classes but keeping good grades (Bozick, 2007; Kahu, 2013). However, carrying the heavy weight of all these activities the student wants and has to accomplish also produces exhaustion. And this last one carves on having thoughts on dropping out from studies (Hunter & Devine, 2016).

## CONCLUSIONS

The results found in this research open new paradigms towards studies related to university dropouts. In summation, the study suggests the incidence of factors such as transportation, distances and safety are, influencing the intention of dropout, but they are not the most important factors. Even so, it was found that these factors involve other situations that may have not been addressed before concerning university dropout.

Of course, we can say that urban development has changed the lives of neighborhoods and people who live there, but it also includes disadvantages related to traffic, distance, and personal safety. Panama City has significant present and future challenges with urban mobility. The most important determinant of urban accessibility is the mobility infrastructure, which also encompasses the infrastructure associated with public and private transportation. If we do not stop to consider the well-being of university students, severe traffic congestion, limited public transportation supplies, and lack of personal safety will continue to be part of these challenges. Hence, I must point out that these situations, whose applications cover much more than traffic, should be known by university authorities as they should be discussed as part of the curricula of those studying urban development and even logistics as Melo Lerma (2012) argues.

The respondents reflected on how university costs have increased over the years in order to achieve their goal of obtaining a degree. Their concern was not the tuition fees but all the other expenses involved, particularly those related to transportation and nourishment. They reflected on changes in their life such as having to opt for a new place of residence near the campus and not being able to acquire it due to the lack of financial liquidity, not being able to work where they desire, being exposed to personal safety issues while commuting, and emotional distress and health problems. All of these situations have generated a conflict between student's expectations and aspirations of finishing their studies. However, they also exposed the fact that none of these was of greater importance when they thought about leaving university.

Finally, I concur with the views of Herbas, et al. (2019), who posits that the intention to drop out and the subsequent decision-making process in order to drop out is defined by uncertainty concerning life changes and also not knowing the academic benefits and sacrifices required to succeed at university.

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