New Ring Road Resident Travel Origin-Destination (O-D) Survey Report in Ulaanbaatar

Abstract

This report consists of seven chapters. It primarily provides an overview of the O-D survey, O-D data analysis, and the analysis of Ulaanbaatar's traffic conditions.

The first and second chapters focus on the details of the O-D survey. It details the O-D survey procedures and methodologies, with survey data processed through data analysis software to support subsequent analysis of resident travel characteristics. The third chapter primarily covers the analysis of resident travel survey data in Ulaanbaatar. Contents such as collected household information, resident characteristics, travel data, and resident preference surveys are sorted out and analyzed. In the travel characteristics analysis, key indicators such as travel purpose, mode of travel, and duration of travel are emphasized. The fourth chapter mainly presents public evaluations of Ulaanbaatar's traffic conditions. The fifth chapter comparatively analyzes the 2022 O-D survey and the 2025 O-D survey across three aspects: travel purpose, travel mode, and travel duration. The sixth chapter focuses on traffic condition analysis and the O-D matrix, examining traffic flow, road segment congestion attributes, and peak-hour traffic volumes at key intersections, concluding with an explanation of the O-D matrix data generation process. The seventh chapter summarizes the key findings from all preceding chapters.

Table of Contents

1. Main Content and Objectives of the O-D Survey 4
    1.1 Work Background 4
    1.2 Work Objectives 4
2. Survey Methodology 4
    2.1 Structure of the Data Collection Team 4
    2.2 Roles of the Data Collection Team Members 4
    2.3 Questionnaire Design 5
    2.4 Data Collection Methodology 7
    2.5 Quality Control on Collected Data 10
    2.6 Data Entry Software Development 10
3. Analysis of Ulaanbaatar Resident Travel Survey Data 14
    3.1 Resident Travel Characteristics in 2025 14
    3.2 Travel Purposes in 2025 16
        3.2.1 General Situation 16
        3.2.2 Travel Mode and Travel Purpose 17
    3.3 Travel Modes in 2025 18
        3.3.1 General Situation 18
        3.3.2 Travel Purposes and Travel Mode 19
    3.4 Travel Duration in 2025 21
        3.4.1 General Situation 21
        3.4.2 Travel Purpose and Travel Duration 21
        3.4.3 Travel Mode and Travel Duration 26
    3.5 Age Distribution of Participants 29
    3.6 Analysis of Resident Preferences in 2025 30
4. Public Evaluation on Ulaanbaatar's Transportation System 31
    4.1 Traffic Issues 31
    4.2 Congestion Analysis 33
    4.3 Traffic Conditions 34
    4.4 Traffic Congestion Mitigation Measures 36
5. Comparative Analysis of 2012 O-D Survey and 2025 O-D Survey 37
    5.1 Travel Purpose Comparison: 2022 vs 2025 37
        5.1.1 Overall Comparison 37
        5.1.2 Travel Mode and Travel Purpose Comparison 38
    5.2 Travel Mode Comparison: 2022 vs. 2025 41
        5.2.1 Overall Comparison 41
        5.2.2 Travel Purposes and Travel Mode 42
    5.3 Travel Duration Comparison: 2022 vs. 2025 44
        5.3.1 Overall Comparison 44
        5.3.2 Travel Purpose and Travel Duration Comparison 45
        5.3.3 Travel Mode and Travel Duration Comparison 50
6. Conclusions 55

6.1 Surveyed Household Information 55
6.2 Main Survey Results on Resident Travel 55
Appendix 63

List of Figures

Figure 1 The First Questionnaire Design Discussion Meeting held on January 27th.....6
Figure 2 Questionnaire Design Discussion Meeting held on January 30th.....6
Figure 3 Questionnaire Design Research Progress Timeline 7
Figure 4 Traffic Analysis Zones (TAZs) Along the New Ring Road Corridor.....8
Figure 5 Household Survey in Impacted Areas 9
Figure 6 Sampling Framework Implementation.....9
Figure 7 Intercept Survey at Public Transport Nodes 9
Figure 8 Household Survey Conducted in the Northern Ger District..... 10
Figure 9 Data Entry Module..... 11
Figure 10 Data Analysis Module..... 11
Figure 11 Resident Travel Survey Data Entry..... 12
Figure 12 Urban Resident Travel Questionnaire Survey 12
Figure 13 Resident Travel Data Analysis..... 12
Figure 14 Urban Resident Questionnaire Analysis 13
Figure 15 Household Size Proportion..... 14
Figure 16 Housing Gross Floor Area Proportion 14
Figure 17 Housing Tenure Proportion 15
Figure 18 Vehicle Purchase Plan Proportion..... 15
Figure 19 Satisfaction Index for Urban Public Transportation 15
Figure 20 Proportion of Residential Parking Locations for Private Vehicles..... 15
Figure 21 Proportion of Workplace Parking Locations for Private Vehicles..... 15
Figure 22 Distribution of Travel Purposes..... 16
Figure 23 Travel Purpose Proportion Composition Diagram of Different Travel Modes in 2025 17
Figure 24 Overall Proportion Composition Diagram of Travel Modes 19
Figure 25 Proportion Composition Diagram of Other Travel Mode of Different Travel Purposes in 2025..... 20
Figure 26 Overall Proportion Composition Diagram of Travel Duration 21
Figure 27 Proportion Composition of Travel Duration of Different Travel Purposes in 2025① 22
Figure 28 Proportion Composition of Travel Duration of Different Travel Purposes in 2025② 25
Figure 29 Proportion Composition of Travel Duration of Different Travel Modes in 2025① 26
Figure 30 Proportion Composition of Travel Duration of Different Travel Modes in 2025② 28
Figure 31 Age Distribution of Participants..... 29
Figure 32 Level of Support for the Grand Ring Road Project 30
Figure 33 Frequency of Ring Road Usage..... 30
Figure 34 Road Infrastructure..... 31
Figure 35 Public Transport Operations..... 32
Figure 36 Walking/Bicycle Conditions 32

Figure 37 Breakdown of Traffic Congestion Causes 34
Figure 38 Year-on-Year Comparison of Traffic Conditions..... 35
Figure 39 Public Support for Traffic Congestion Mitigation Measures 36
Figure 40 Overall Proportion Comparison Diagram of Travel Purpose: 2022 vs 2025..... 38
Figure 41 Travel Purpose Proportion Composition Diagram of Different Travel Modes in 2025 40
Figure 42 Travel Purpose Proportion Composition Diagram of Different Travel Modes in 2022 40
Figure 43 Overall Proportion Comparison Diagram of Travel Mode: 2022 vs 2025..... 41
Figure 44 Proportion Composition Diagram of Other Travel Mode of Different Travel Purposes in 2025..... 43
Figure 45 Proportion Composition Diagram of Other Travel Mode of Different Travel Purposes in 2022..... 44
Figure 46 Overall Proportion Comparison Diagram of Travel Duration..... 44
Figure 47 Proportion Composition of Travel Duration of Different Travel Purposes in 202546
Figure 48 Proportion Composition of Travel Duration of Different Travel Purposes in 2022 47
Figure 49 Proportion Composition of Travel Duration of Different Travel Purposes..... 49
in 2022 and 2025..... 49
Figure 50 Proportion Composition of Travel Duration of Different Travel Modes in 2025① 52
Figure 51 Proportion Composition of Travel Duration of Different Travel Modes in 2022① 52
Figure 52 Proportion Composition of Travel Duration of Different Travel Modes 54
in 2022 and 2025② 54
Figure 53 Distribution of Travel Purposes..... 56
Figure 54 Overall Proportion Composition Diagram of Travel Modes 57
Figure 55 Overall Proportion Composition Diagram of Travel Duration 57
Figure 56 Projected Trend Line for Morning Peak in 2025..... 59
Figure 57 Bar Chart for Morning Peak in 2025 60
Figure 58 Projected Trend Line for Noon Peak in 2025 61
Figure 59 Bar Chart for Noon Peak in 2025 61
Figure 60 Projected Trend Line for Evening Peak in 2025..... 62
Figure 61 Bar Chart for Evening Peak in 2025..... 62

List of Tables

Table 1 Traffic Analysis Zone Adjacent to the New Ring Road 8
Table 2 Travel Purpose Proportion Composition Table of Different Travel Modes in 2025 (%) 17
Table 3 Overall Proportion Composition Table of Travel Modes (%) 18
Table 4 Proportion Composition Table of Other Travel Mode of Different Travel Purposes in 2025 (%) 19
Table 5. Proportion Composition Table of Travel Duration of Different Travel 21
Purposes in 2025 (%) 21
Table 6 Travel Duration Proportion Composition Table of Different Travel Modes in 2025 (%) 26
Table 7 Travel Purpose Proportion Composition Table of Different Travel Modes in 2025 (%) 38
Table 8 Travel Purpose Proportion Composition Table of Different Travel Modes in 2022 (%) 39
Table 9 Overall Proportion Comparison Table of Travel Mode between 2022 and 2025(%). 41
Table 10 Proportion Composition Table of Other Travel Mode of Different Travel Purposes in 2025 (%) 42
Table 11 Proportion Composition Table of Other Travel Mode of Different Travel Purposes in 2022 (%) 42
Table 12 Proportion Composition Table of Travel Duration of Different Travel Purposes..... 45
in 2025 (%) 45
Table 13 Proportion Composition Table of Travel Duration of Different Travel Purposes 45
in 2022 (%) 46
Table 14 Travel Duration Proportion Composition Table of Different Travel Modes in 2025 (%) 50
Table 15Travel Duration Proportion Composition Table of Different Travel Modes in 2022 (%) 51
Table 16 Morning Peak Traffic Zone Trip Matrix in Ulaanbaatar(pcu/h) 59
Table 17 Noon Peak Traffic Zone Trip Matrix in Ulaanbaatar(pcu/h) 60
Table 18 Evening Peak Traffic Zone Trip Matrix in Ulaanbaatar(pcu/h) 61

1. Main Content and Objectives of the O-D Survey

This section summarizes the O-D survey background and overview. It evaluates the need for new ring road construction, outlines survey procedures, and describes entering survey data into analysis software for later resident travel analysis.

1.1 Work Background

According to Ulaanbaatar's overall development planning and implementation action plan through 2040, the city's population is projected to reach 1.8671 million (2030), 1.9872 million (2035), and 2.0898 million (2040). By then, 56% of Mongolia's total population will be concentrated in the capital, with a population density of 65.5 persons/hectare. Vehicle registration data from 2021 shows that Mongolia has 1.237 million registered vehicles, of which 662,644 are registered in Ulaanbaatar. Additionally, registered vehicles increased from 42,509 in 2000 to 604,000 in 2020, with an average annual growth rate of 10.1%. However, the length of roads in Ulaanbaatar has seen negligible expansion in recent years, indicating that traffic congestion in Ulaanbaatar is expected to worsen in the future. To alleviate this issue, the construction of a new ring road has been initiated.

1.2 Work Objectives

To inform scientifically-grounded planning and maximize roadway utilization of the proposed new ring road in Ulaanbaatar, it is essential to determine the city's traffic volumes and transportation demands. Accordingly, an origin-destination (O-D) survey will be conducted across Ulaanbaatar to provide critical data support for the new ring road construction project.

2. Survey Methodology

2.1 Structure of the Data Collection Team

A well-structured data collection team is crucial for the successful completion of the survey. The team consists of experienced researchers, with priority given to individuals with prior experience in similar surveys.

The data collection team consists of 15 members. The data collection team is divided into three groups, each consisting of a group leader and four field interviewers.

2.2 Roles of the Data Collection Team Members

Head of Data Collection Team: Manages and supervises the whole process of data collection and organization.

Team Leader/Manager: Organizes data collection within his own team, provides daily guidance and advice to interviewers, and monitors daily activities.

Data Collection Supervisor: Oversees data collection and verifies the reliability and validity of completed questionnaires. Supervisors document each researcher's errors, compile common mistakes, and deliver corrective feedback.

Field Interviewer: Gathers truthful and complete data in strict accordance with the approved questionnaire and the provided instructions. In cases of incomplete or inaccurate survey data, the field interviewer is required to either amend the errors or conduct a follow-up survey.

2.3 Questionnaire Design

The content of the research questionnaire was compiled and provided by the executing party, "CSCEC AECOM CONSULTANTS CO., LTD" and "AUDE". The questionnaire has incorporated the feedback from "NUHAGZTBTKHN" and has been finalized.

The executing party and the partnering organization completed the final review of the questionnaire through two meetings and revised the content according to the formatting requirements provided by the executing party. The executing party must consolidate the survey-collected data in this format and input it into the specialized transportation planning software TransCAD for result analysis.

The conduct of the meetings has been verified through video footage.

The survey questionnaire consists of three parts: household information, resident information, and travel information. The household information section covers: household size, housing floor area, property type, vehicle purchase plans, satisfaction with urban public transportation, residential parking locations for private cars, and workplace parking locations for private cars.

The resident information section includes Ulaanbaatar residents' opinions and suggestions on the new ring road construction, as well as their views on certain transportation issues in the city.

The travel information section covers travel purposes, travel mode, and travel duration.

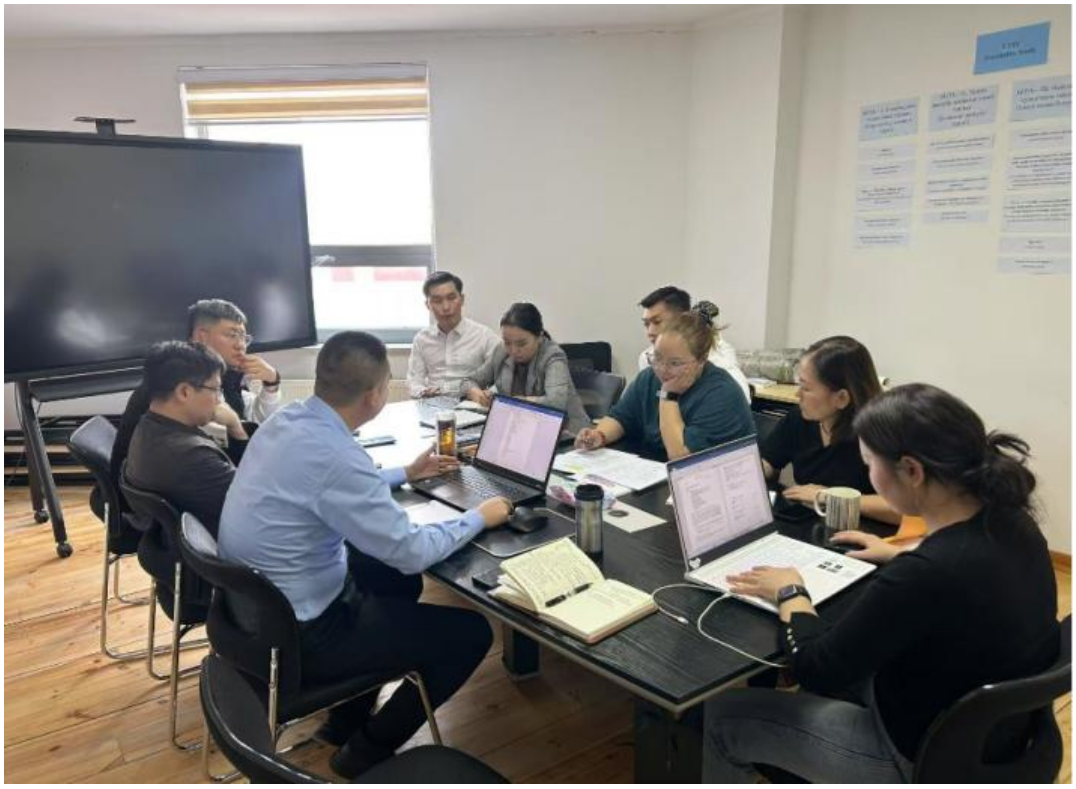


Figure 1 The First Questionnaire Design Discussion Meeting held on January 27th

Figure 2: Questionnaire Design Discussion Meeting held on January 30th

Figure 3: Questionnaire Design Research Progress Timeline

2.4 Data Collection Methodology

The sampling framework was established, and survey data were collected to achieve a minimal standard error. Questionnaires were distributed to 52 traffic analysis zones (TAZs) within a 1km buffer zone along the new ring road corridor. A quota of 50 valid responses per zone was obtained, aggregating 2,600 completed questionnaires. The specific information of sampled traffic analysis zones is detailed in Table 1. The survey covered residential areas within the new ring road corridor, as illustrated in Figures 4 through 8.

Table 1: Traffic Analysis Zone Adjacent to the New Ring Road

	(Traffic Analysis Zone)
Western Ring Road Section	96、114、117、120、121、199
Northern Ring Road Section	22、32、39、43、49、60、108
Eastern Ring Road Section	27、63、125、128、129
Ring Road Hinterland	37、38、40、41、57、64、68、85、86、87、89、118、122、130、131、191、192、205
Inner Ring Road Area	6、23、69、90、91、92、110、126、127、144、145、180、181、190

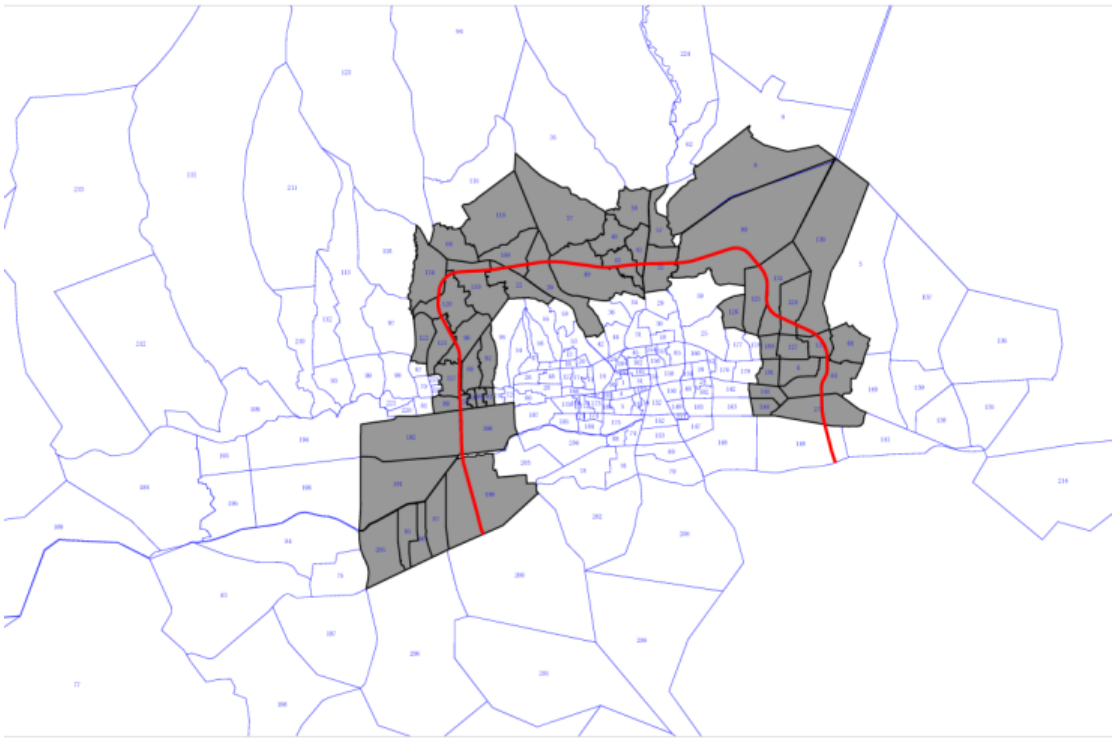


Figure 4 Traffic Analysis Zones (TAZs) Along the New Ring Road Corridor

Figure 5 Household Survey in Impacted Areas

Figure 6 Sampling Framework Implementation

Figure 7 Intercept Survey at Public Transport Nodes

Figure 8 Household Survey Conducted in the Northern Ger District

2.5 Quality Control on Collected Data

Field data collection utilized paper questionnaires with face-to-face administration. Structured interviews were completed for all 2,600 sampled respondents using the approved instrument. Pre-interview protocols included explanatory statements on survey importance and presentation of Mongolian Ministry of Transport authorization letters. Interviews commenced only after obtaining respondent consent.

The paper questionnaire format enabled interviewers to conduct more thorough surveys, ensuring the collection of valid and accurate information.

Data processing involved organizing survey results into an Excel book with four standardized sheets: (1) Household Attributes, (2) Resident Profiles, (3) Travel Information, and (4) Public Feedback. Dataset screening was performed across all sheets to isolate variables for subsequent statistical processing.

2.6 Data Entry Software Development

The data entry application was custom-built within the Road Traffic Management System (RTMS), strictly adhering to the authorized survey instrument specifications. The data entry application was custom-built within the Road Traffic Management System (RTMS), strictly adhering to the authorized survey instrument specifications. The road traffic management system is a comprehensive professional application and features two core functions: data entry and data analysis (see Figures 9and 10). The data entry module comprises three dedicated submodules: (i) Resident Travel Diary, (ii) Floating Population Travel Log, and (iii) Urban Resident Travel Questionnaire. Specific

interfaces for resident travel survey data entry and urban resident travel questionnaires are shown in Figures 11 and 12. The data analysis module comprises tools for resident travel data analysis, urban resident travel questionnaire analysis, and floating population data analysis. The resident travel data analysis and urban resident questionnaire analysis interfaces are displayed in Figures 13 and 14. All O-D survey data were input into designated modules, establishing the foundation for subsequent resident travel characteristics analysis.

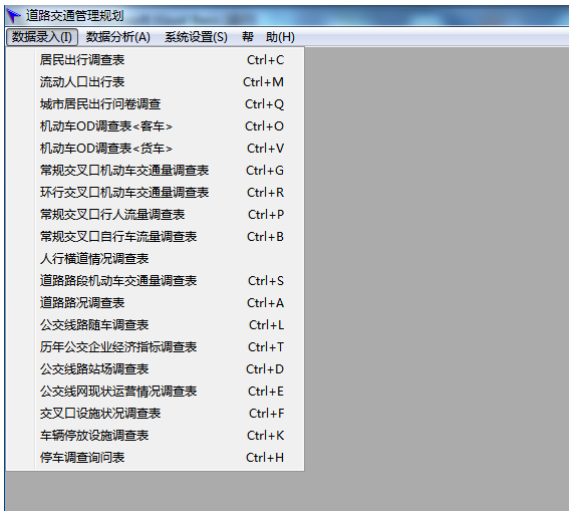


Figure 9 Data Entry Module

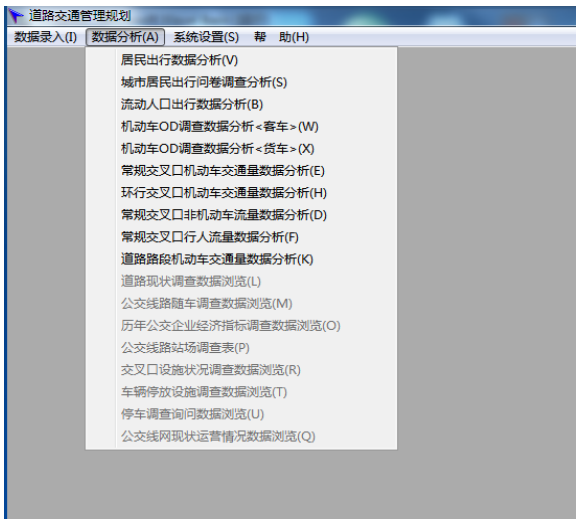


Figure 10 Data Analysis Module

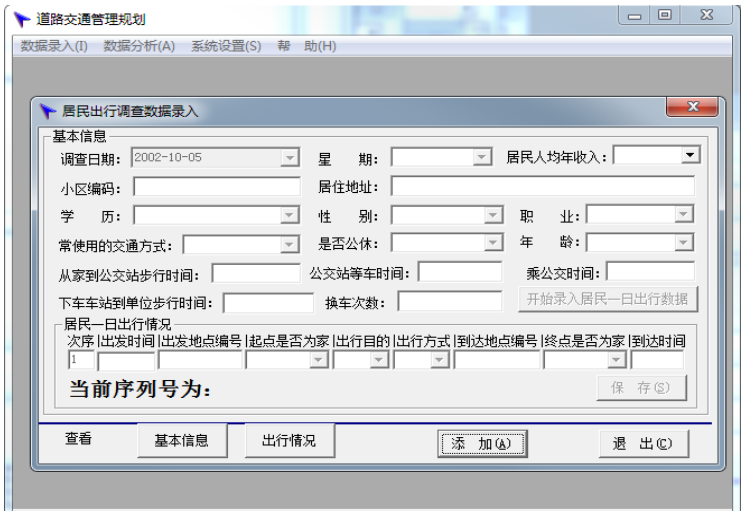


Figure 11 Resident Travel Survey Data Entry

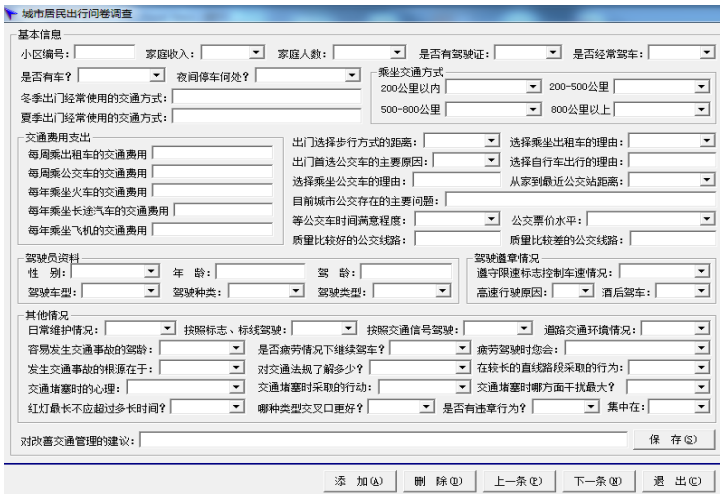


Figure 12 Urban Resident Travel Questionnaire Survey

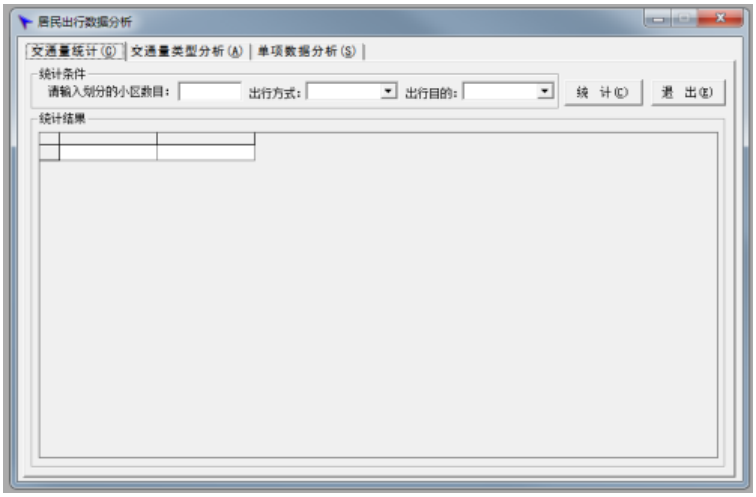


Figure 13 Resident Travel Data Analysis

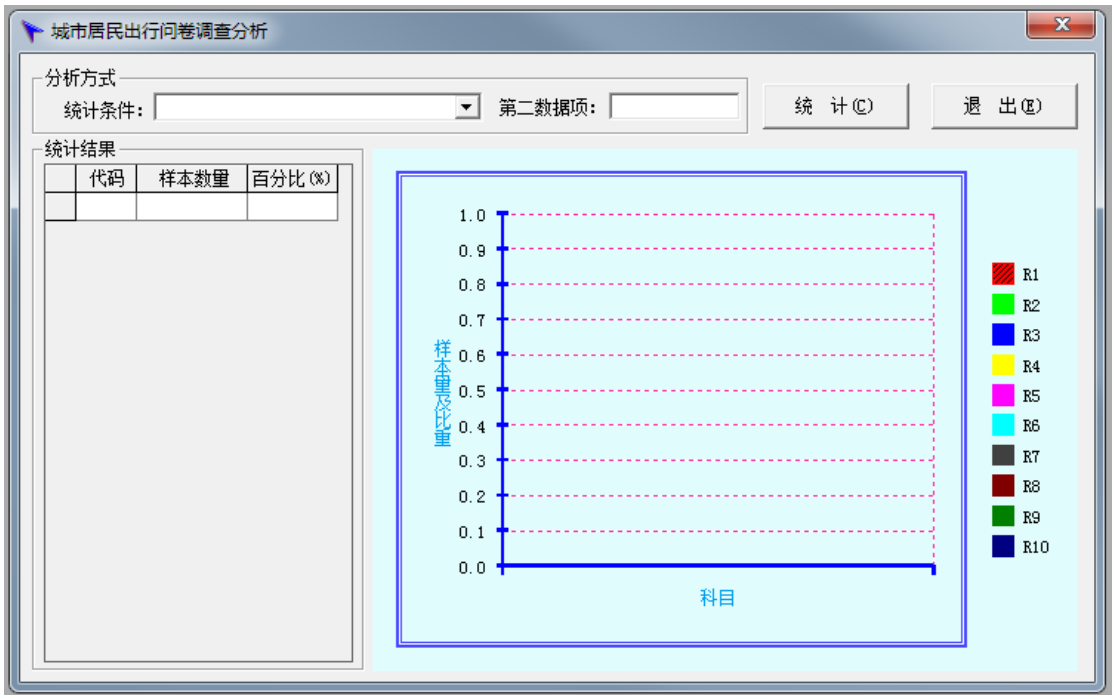


Figure 14 Urban Resident Questionnaire Analysis

3. Analysis of Ulaanbaatar Resident Travel Survey Data

The collected data-including household information, resident characteristics, travel data, and public feedback on the transportation plan-were systematically analyzed and compared with the 2022 O-D survey results. The travel characteristics analysis emphasized three core metrics: travel purpose, travel mode, and travel duration. The travel distribution matrix and Traffic Analysis District (TAD) divisions were used to produce desire-line diagrams and bar charts showing existing and forecasted peak-hour traffic productions and attractions during midday peak hours.

3.1 Resident Travel Characteristics in 2025

Analysis of household survey data yields the following conclusions:

(1) The average household size stands at 4.19 persons per household, with the majority of housing gross floor area falling within 20-60 m². Owner-occupied residences account for the largest share, while most residents currently have no vehicle purchase plans and express dissatisfaction with urban public transportation services. Detailed statistics are shown in Figures 15 to 16.

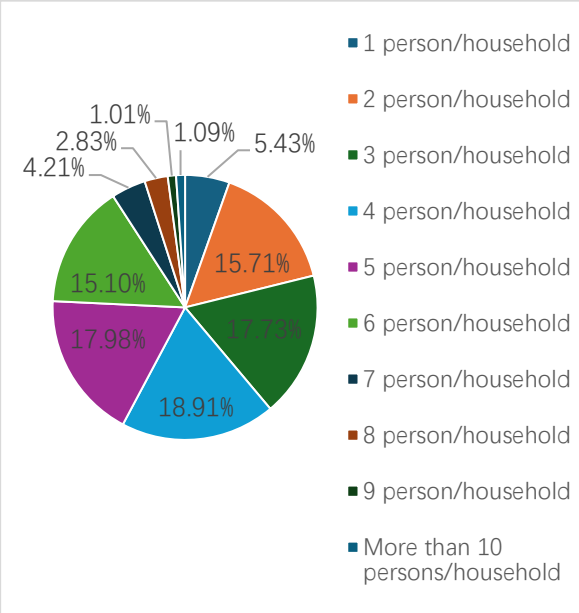


Figure 15 Household Size Proportion

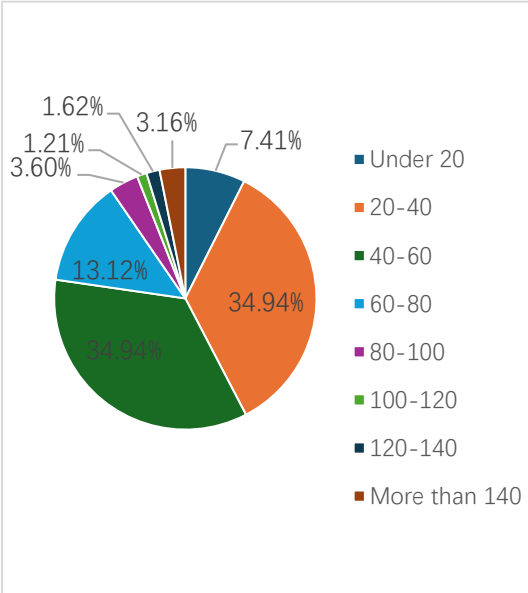


Figure 16 Housing Gross Floor Area Proportion

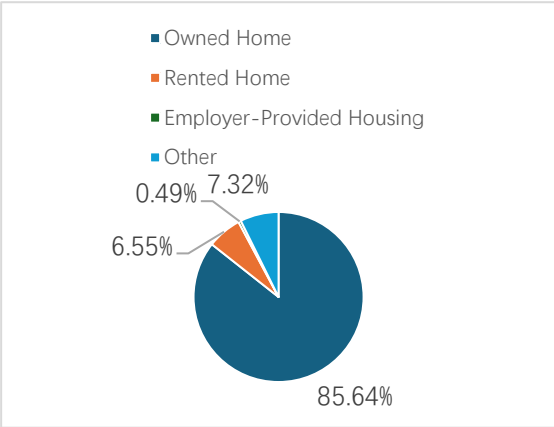


Figure 17 Housing Tenure Proportion

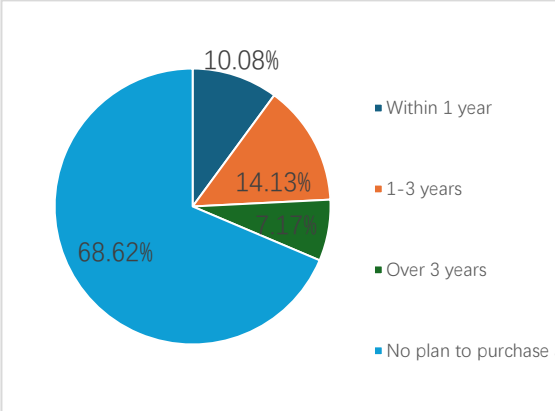


Figure 18 Vehicle Purchase Plan Proportion

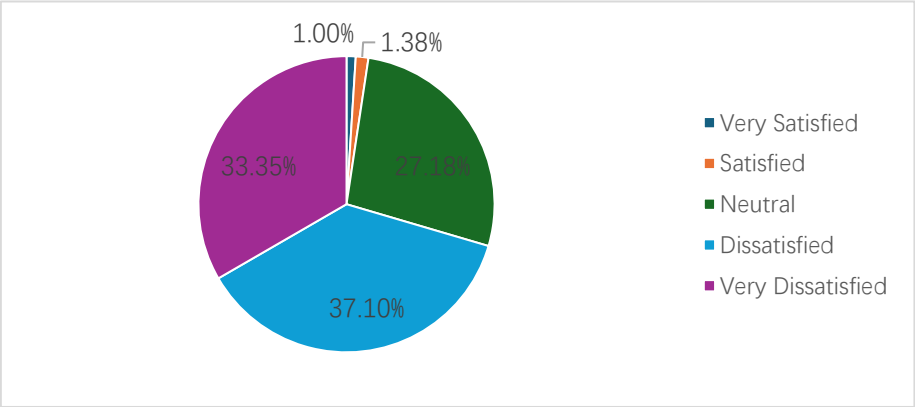


Figure 19 Satisfaction Index for Urban Public Transportation

(2) The average daily trip frequency for private cars is 4.29 on weekdays. For residential parking, the predominant location is inside a fence, while at workplaces, other parking spots constitute the majority. Detailed distributions are shown in Figures 20 and 21.

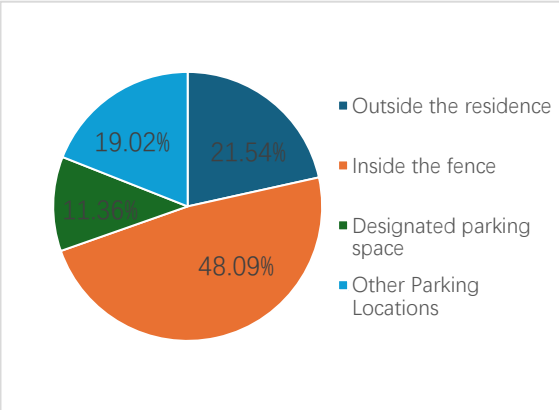


Figure 20: Proportion of Residential Parking Locations for Private Vehicles

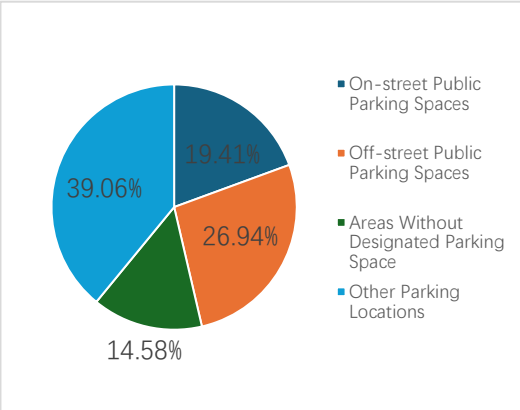


Figure 21: Proportion of Workplace Parking Locations for Private Vehicles

(3) The citywide trip volume in Ulaanbaatar stood at 2.8 million person-trips in 2022. Given the 14% compound growth rate from 2022 to 2025, the projected annual

trip volume will reach 3.2 million in 2025, translating to a daily average of 8,889 person-trips.

3.2 Travel Purposes in 2025

3.2.1 General Situation

The survey categorizes residents' travel purposes into nine types based on travel characteristics: returning home, work commute, school attendance, child pick-up/drop-off, work/business meetings, taxi/delivery driving, daily shopping, medical visits, and government/social services. Detailed breakdowns are shown in Figure 22.

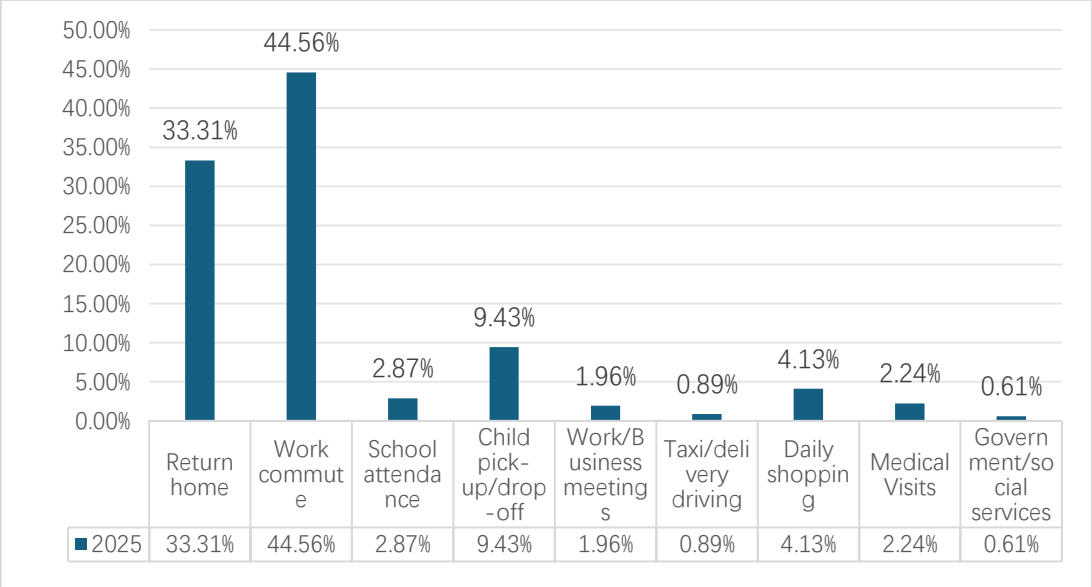


Figure 22 Distribution of Travel Purposes

Key findings include:

(1) The dominant travel purposes are "Work commute" (44.56%) and "return home" (33.31%), jointly representing nearly 80% of total travel, indicating that commuting and home return are the core travel needs.

(2) "Child pick-up/drop-off" (9.43%) also represents a significant proportion, while "School attendance" (2.87%) accounts for a relatively lower share.

(3) Life-related travels such as "Daily shopping" (4.13%) and "medical visits" (2.24%) show moderate proportions, whereas "Business activities" (1.96%) and "Professional driving" (0.89%) occupy relatively lower shares.

(4) Overall, Ulaanbaatar's travel pattern exhibits a work-home oriented structure, with other purposes maintaining relatively balanced shares, consistent with typical urban commuting patterns.

3.2.2 Travel Mode and Travel Purpose

Statistical analysis reveals the composition of travel purposes by different travel modes, as presented in Table 2 and Figure 23.

Table 2: Travel Purpose Proportion Composition Table of Different Travel Modes in 2025 (%)

Travel Mode	Return home	Work commute	School attendance	Child pick-up/drop-off	Work/Business meetings	Taxi/delivery driving	Daily shopping	Medical visits	Government/social services	Total
Private car	30.59	46.82	2.11	11.25	2.01	1.20	3.59	2.11	0.34	100.00
Public bus	35.93	43.15	2.86	8.09	1.62	0.50	4.79	2.30	0.75	100.00
Bus	42.55	38.30	0	2.13	10.64	0	2.13	4.26	0	100.00
Taxi	26.39	26.39	13.89	12.50	0	1.39	15.23	4.17	0	100.00
Motorcycle	46.15	30.77	15.38	0	0	0	0	7.69	0	100.00
Bicycle	33.33	33.33	0	0	0	0	33.33	0	0	100.00
Walking	36.45	42.52	4.91	6.78	2.57	0.93	2.57	2.10	1.17	100.00
Others	27.27	63.63	0	0	0	0	0	0	9.09	100.00

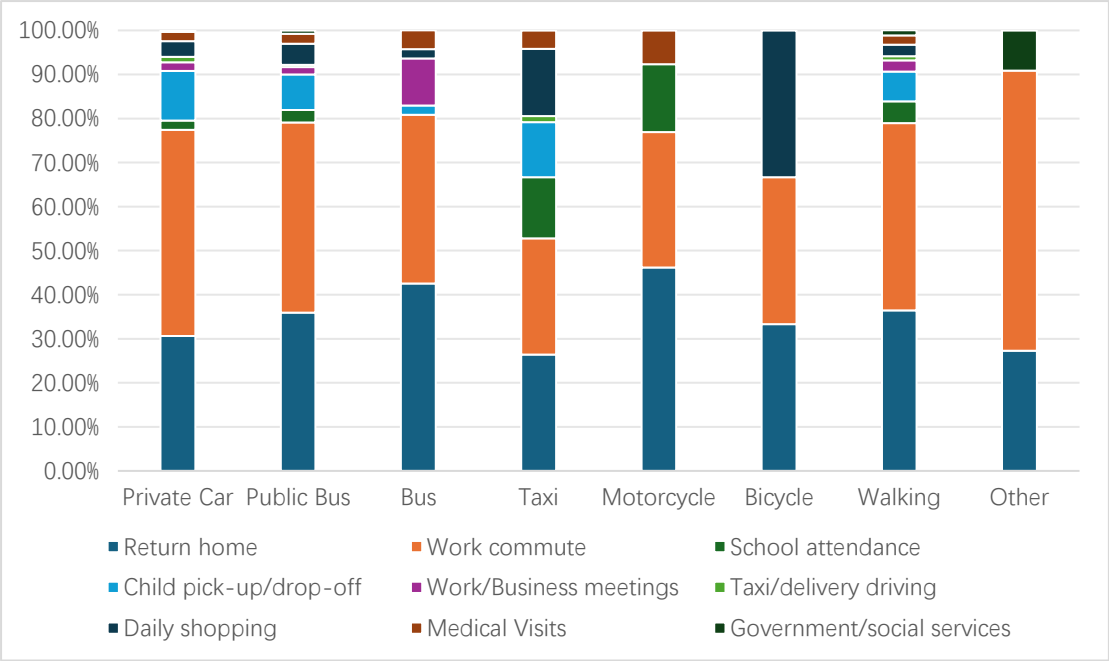


Figure 23 Travel Purpose Proportion Composition Diagram of Different Travel Modes in 2025

Key findings include:

(1) Private cars and buses dominate as the primary travel modes, with the highest modal shares, primarily for home-return and work commutes (collectively exceeding 70%).

(2) Motorcycles and bicycles have lower modal shares, though motorcycles show a pronounced school attendance share (15.38%), whereas bicycles predominantly serve leisure purposes (33.33%; potential leisure overlap with walking).

(3) Buses account for a higher modal share in work/business meetings (10.64%) relative to other modes.

(4) Walking exhibits balanced distribution across all travel purposes, indicative of short-distance travel patterns.

(5) Overall, commuting constitutes the core travel demand, though each mode demonstrates scenario-specific advantages.

3.3 Travel Modes in 2025

3.3.1 General Situation

The choice of travel modes among residents is influenced by personal characteristics, social factors, travel purposes, and origin-destination locations. To account for the complexity of mode selection, the survey categorizes travel modes into eight types: private cars, public buses, buses, taxis, motorcycles, bicycles, walking, and others. Statistical analysis of the survey results yields the traveler distribution and proportions by travel mode, as shown in Table 3 and Figure 3-10.

Table 3: Overall Proportion Composition Table of Travel Modes (%)

Mode	Private car	Public bus	Bus	Taxi	Motorcycle	Bicycle	Walking	Others	Total
Proportion	48.82	37.51	1.10	1.68	0.30	0.07	10.00	0.51	100.00

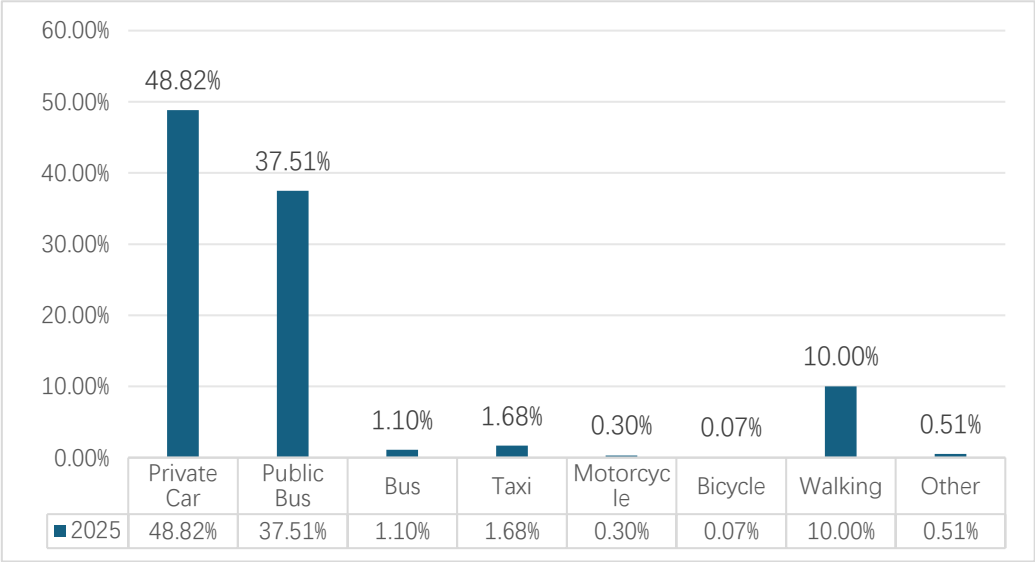


Figure 24: Overall Proportion Composition Diagram of Travel Modes

Key findings include:

(1) In 2025, the primary travel modes for residents of Ulaanbaatar were private cars (48.82%) and public buses (37.51%), together accounting for 86.33% of all modes. This indicates that urban transportation remains heavily reliant on motorized transport.

(2) With private cars representing nearly half of all travels - reflecting high car ownership rates - this trend may exacerbate traffic congestion and pollution. While public buses constitute a substantial share, the system still has optimization potential.

(3) Walking (10%) ranked as the third most prevalent mode, yet non-motorized transport (walking + cycling = 10.07%) represented a relatively small proportion overall, suggesting potentially inadequate pedestrian and cycling infrastructure.

(4) Taxis, motorcycles, and bicycles each constituted less than 2% of total travel, demonstrating negligible impacts on the overall transport system.

3.3.2 Travel Purposes and Travel Mode

The modal share distribution by travel purpose is statistically presented in Table 4 and Figure 25.

Table 4: Proportion Composition Table of Other Travel Modes of Different Travel Purposes in 2025 (%)

Travel Mode	Return home	Work commute	School attendance	Child pick-up/drop-off	Work/Business meetings	Taxi/delivery driving	Daily shopping	Medical visits	Government/social services

Private car	44.87	51.23	35.77	58.17	50.00	65.79	42.61	45.83	26.92
Public bus	40.52	36.30	37.40	32.18	30.95	21.05	43.75	38.54	46.15
Bus	1.40	0.94	0	0.25	5.95	0	0.57	2.08	0
Taxi	1.33	1.00	8.13	2.23	0	2.63	6.25	3.13	0
Motorcycle	0.42	0.21	1.63	0	0	0	0	1.04	0
Bicycle	0.07	0.05	0	0	0	0	0.57	0	0
Walking	10.96	9.53	17.07	7.18	13.10	10.53	6.25	9.38	19.23
Others	0.42	0.73	0	0	0	0	0	0	7.69
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

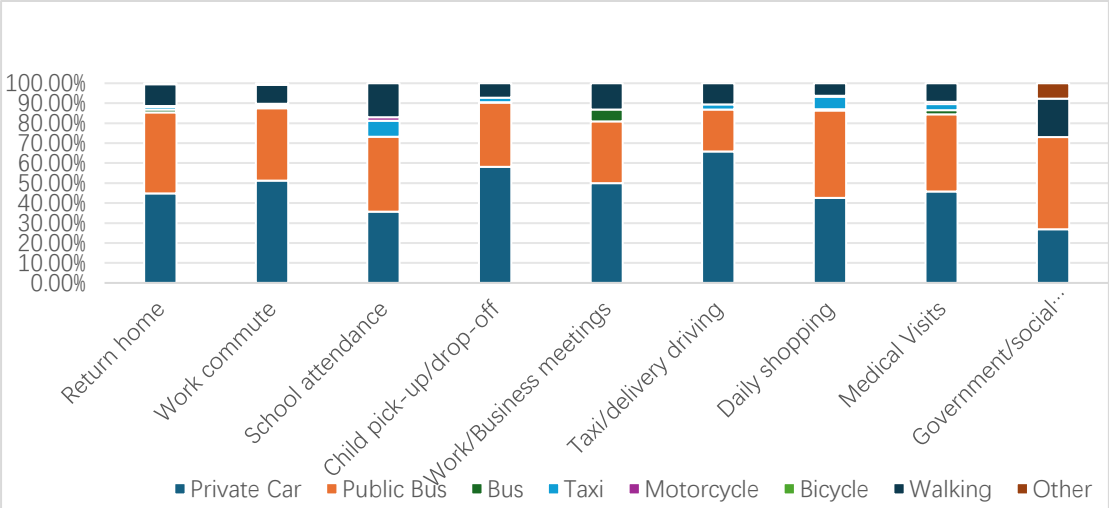


Figure 25: Proportion Composition Diagram of Other Travel Modes of Different Travel Purposes in 2025

Key findings include:

(1) Private cars are the dominant mode of travel, particularly for child pick-up/drop-off (58.17%), work/business meetings (50%), and commuting (51.23%).

(2) Public buses rank as the second mode, showing higher shares in daily shopping (43.75%) and government/social service visits (46.15%).

(3) Walking holds a relatively high proportion for school attendance (17.07%) and government-related activities (19.23%).

(4) Taxis and motorcycles show limited usage but are observed for school attendance (8.13%) and medical visits (3.13%).

(5) Bicycle usage remains negligible.

(6) Overall, reliance on private cars is pronounced, followed by public transport and walking, indicating a need to promote greener travel alternatives.

3.4 Travel Duration in 2025

3.4.1 General Situation

The survey adopts seven travel durations: 0-10 min, 10-20 min, 20-30 min, 30-40 min, 40-50 min, 50-60 min, and >60 min. The resultant duration distribution is statistically summarized in Figure 26.

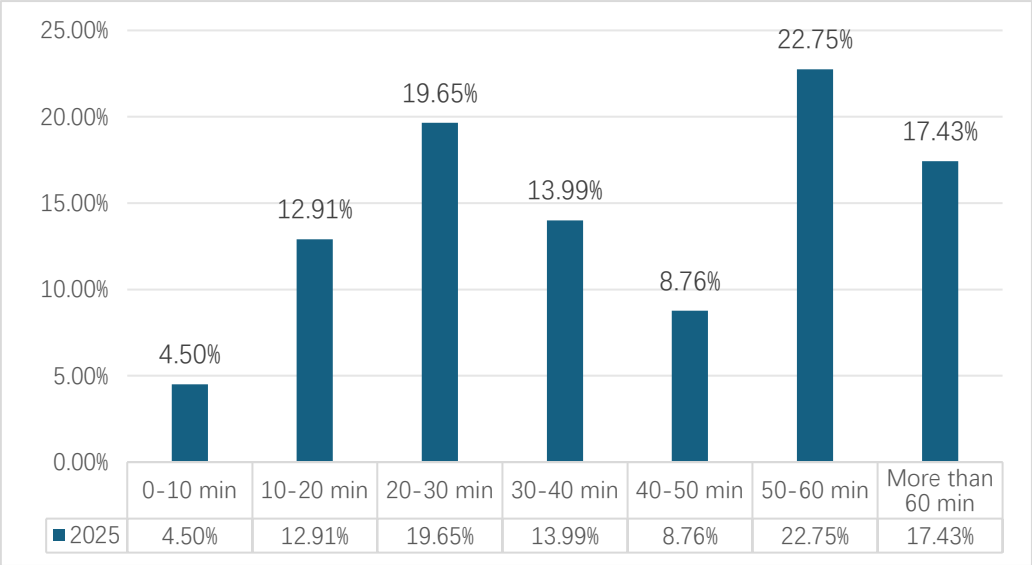


Figure 26: Overall Proportion Composition Diagram of Travel Duration

Key findings include:

(1) Short-duration travels (10-20 min: 12.91%; 20-30 min: 19.65%) account for over 30% combined.

(2) Extended-duration travels (50-60 min: 22.75%; >60 min: 17.43%) show a significant proportion, accounting for 40.18% aggregate.

(3) Mid-length travels (30-40 min: 13.99%; 40-50 min: 8.76%) demonstrate relatively lower shares.

3.4.2 Travel Purpose and Travel Duration

The proportion composition of travel duration for different travel purposes is presented in Table 5 and Figures 27 and 28.

Table 5. Proportion Composition Table of Travel Duration of Different Travel Purposes in 2025 (%)

Travel duration	Return home	Work commute	School attendance	Child pick-up/drop-off	Work/Business meetings	Taxi/delivery driving	Daily shopping	Medical visits	Government/social services
0-10 min	3.87	4.30	2.44	7.20	5.95	8.33	3.45	6.25	0
10-20 min	11.67	12.91	17.07	16.38	27.38	13.89	4.60	19.79	0
20-30 min	18.00	20.42	31.71	23.57	10.71	13.89	16.09	14.58	26.92
30-40 min	13.64	15.75	15.45	10.67	13.10	11.11	10.34	9.38	7.69
40-50 min	9.70	8.14	5.69	9.18	7.14	0	13.79	4.17	19.23
50-60 min	22.93	22.99	18.70	22.33	13.10	36.11	31.03	14.58	26.92
More than 60 min	20.18	15.49	8.94	10.67	22.62	16.67	20.69	31.25	19.23
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

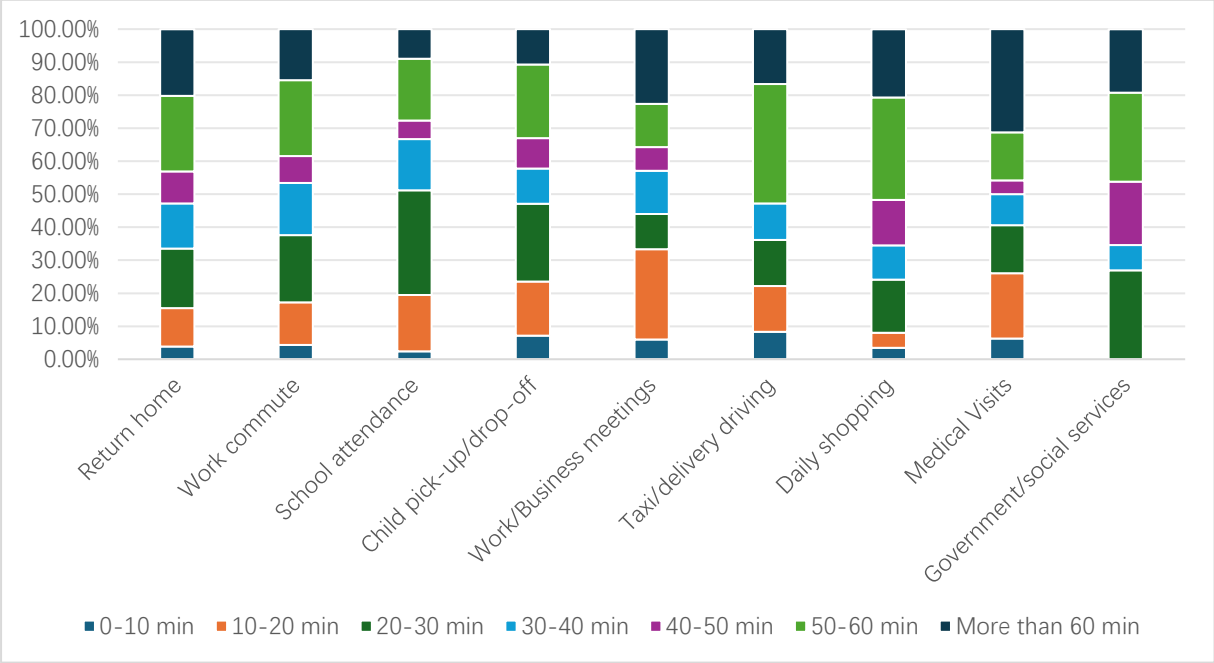
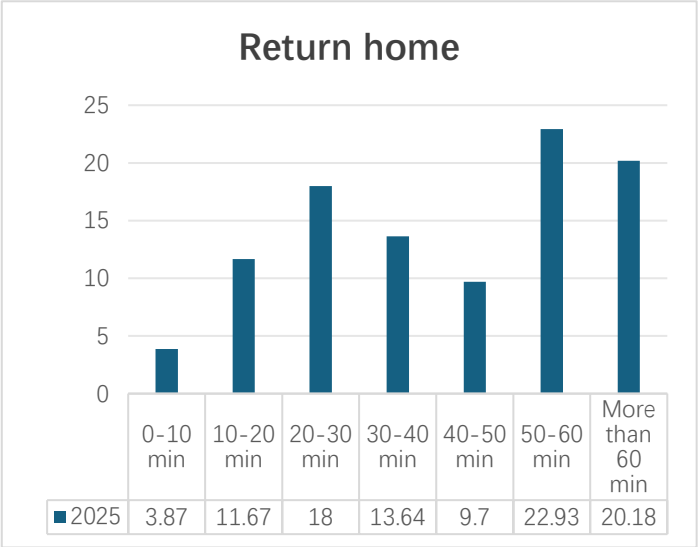
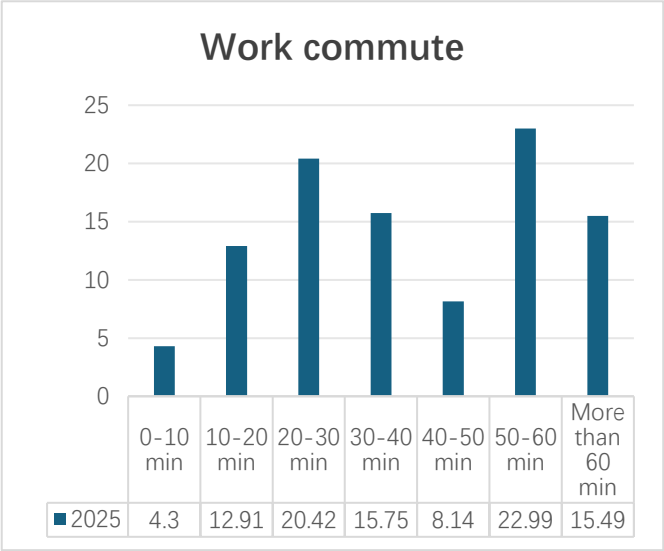
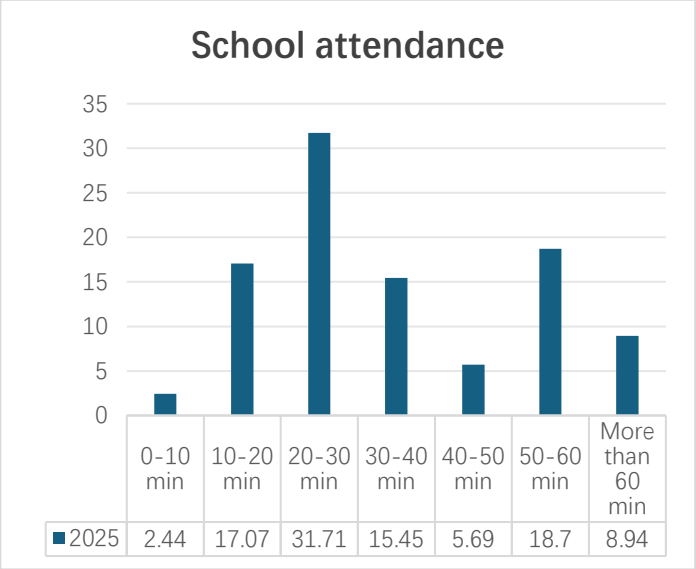
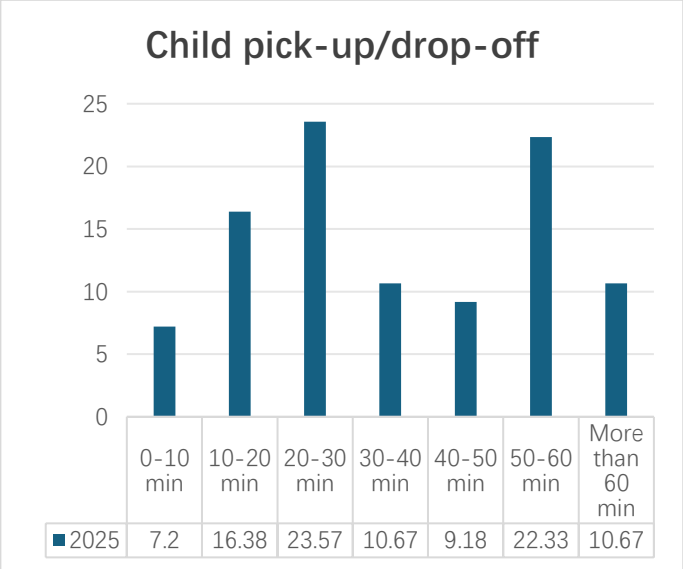


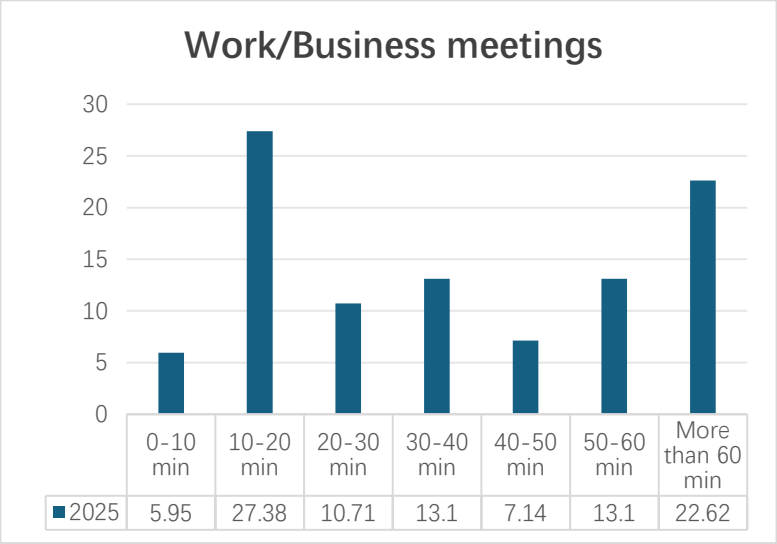
Figure 27: Proportion Composition of Travel Duration of Different Travel Purposes in 2025①

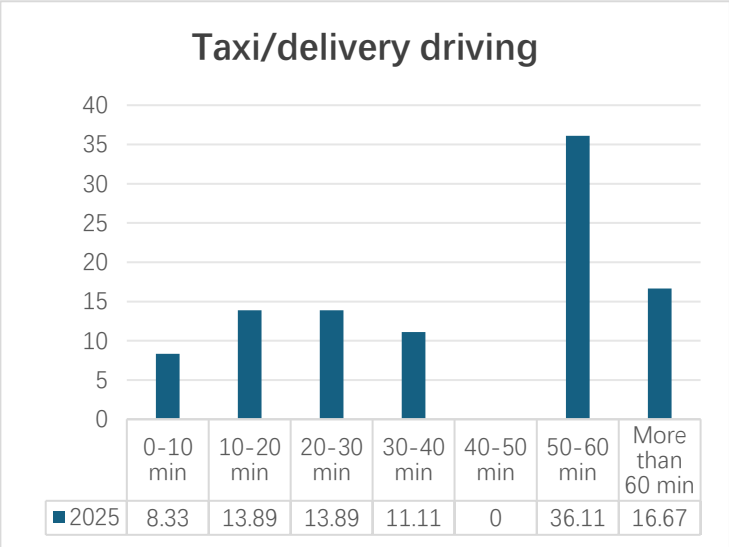

Return home
25
20
15
10
5
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025
3.87
11.67
18
13.64
9.7
22.93
20.18

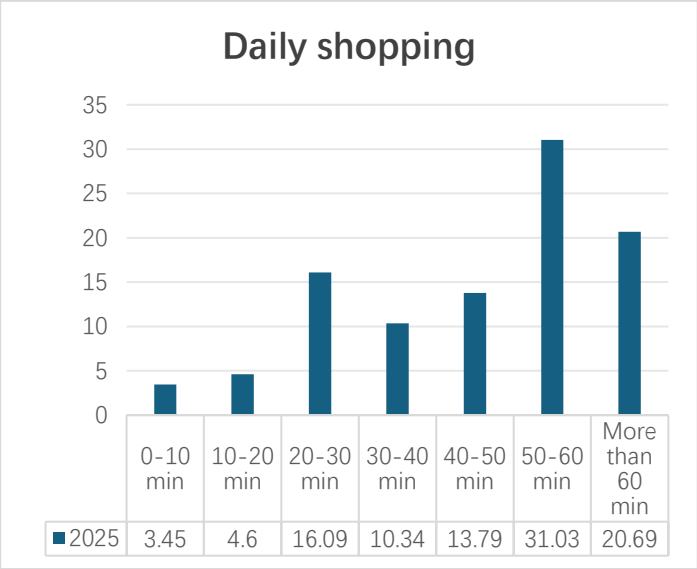

Work commute
25
20
15
10
5
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025
4.3
12.91
20.42
15.75
8.14
22.99
15.49

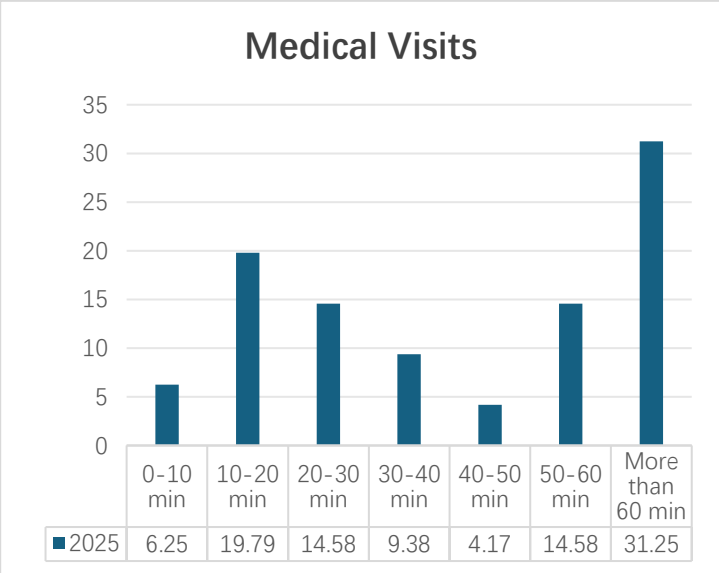

School attendance
35
30
25
20
15
10
5
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025
2.44
17.07
31.71
15.45
5.69
18.7
8.94


Child pick-up/drop-off
25
20
15
10
5
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025
7.2
16.38
23.57
10.67
9.18
22.33
10.67


Work/Business meetings
30
25
20
15
10
5
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025
5.95
27.38
10.71
13.1
7.14
13.1
22.62


Taxi/delivery driving
40
35
30
25
20
15
10
5
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025
8.33
13.89
13.89
11.11
0
36.11
16.67


Daily shopping
35
30
25
20
15
10
5
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025
3.45
4.6
16.09
10.34
13.79
31.03
20.69


Medical Visits
35
30
25
20
15
10
5
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025
6.25
19.79
14.58
9.38
4.17
14.58
31.25

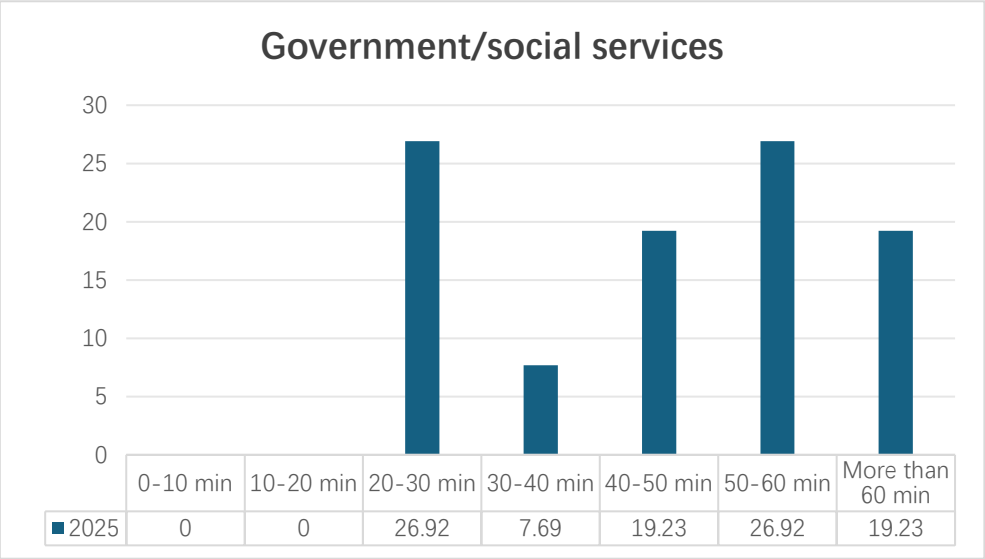


Figure 28 Proportion Composition of Travel Duration of Different Travel Purposes in 2025②

Key findings include:

(1) Return-home and work commute predominantly fall within the 20-30 minute duration (18% and 20.42% respectively), while the 50-60 minute range also accounts for substantial shares (22.93% and 22.99%), suggesting potential longer commute distances or traffic congestion.

(2) School attendance shows the highest concentration in the 20-30 minute duration (31.71%), suggesting relatively standardized student commute times.

(3) Child pick-up/drop-off activities are most frequent in the 20-30 minute duration (23.57%).

(4) Work/business meeting travels show the highest proportion in the 10-20 minute duration (27.38%), with travels over 60 minutes representing 22.62%.

(5) Taxi driving and goods delivery show the highest concentration in the 50-60 minute duration (36.11%).

(6) Both daily shopping and medical visits show elevated proportions in the duration exceeding 60 minutes (20.69% and 31.25% respectively).

(7) Government/social services demonstrate dispersed patterns, with notable shares in both 20-30 minutes and 50-60 minutes (26.92%).

(8) Overall, travel duration distribution varies significantly by purpose in Ulaanbaatar, with generally long travel times especially for commuting and essential services, indicating the need for enhanced urban planning and traffic management.

3.4.3 Travel Mode and Travel Duration

The proportion composition of travel duration for different travel modes are presented in Table 6 and Figures 29 and 30.

Table 6 Travel Duration Proportion Composition Table of Different Travel Modes in 2025 (%)

Travel duration	Private car	Public bus	Bus	Taxi	Motorcycle	Bicycle	Walking	Others
0-10 min	4.35	2.12	2.13	4.17	0	0	14.25	0
10-20 min	11.00	11.71	19.15	9.72	7.69	0	26.87	13.63
20-30 min	17.70	18.82	25.53	18.06	46.15	33.33	30.37	36.36
30-40 min	12.39	17.32	25.53	9.72	15.38	33.33	9.58	0
40-50 min	9.86	8.16	6.38	20.83	15.38	0	4.20	4.55
50-60 min	25.45	22.99	14.89	25.00	0	0	9.58	27.27
More than 60 min	19.23	18.88	6.38	12.50	15.38	33.33	5.14	18.18
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

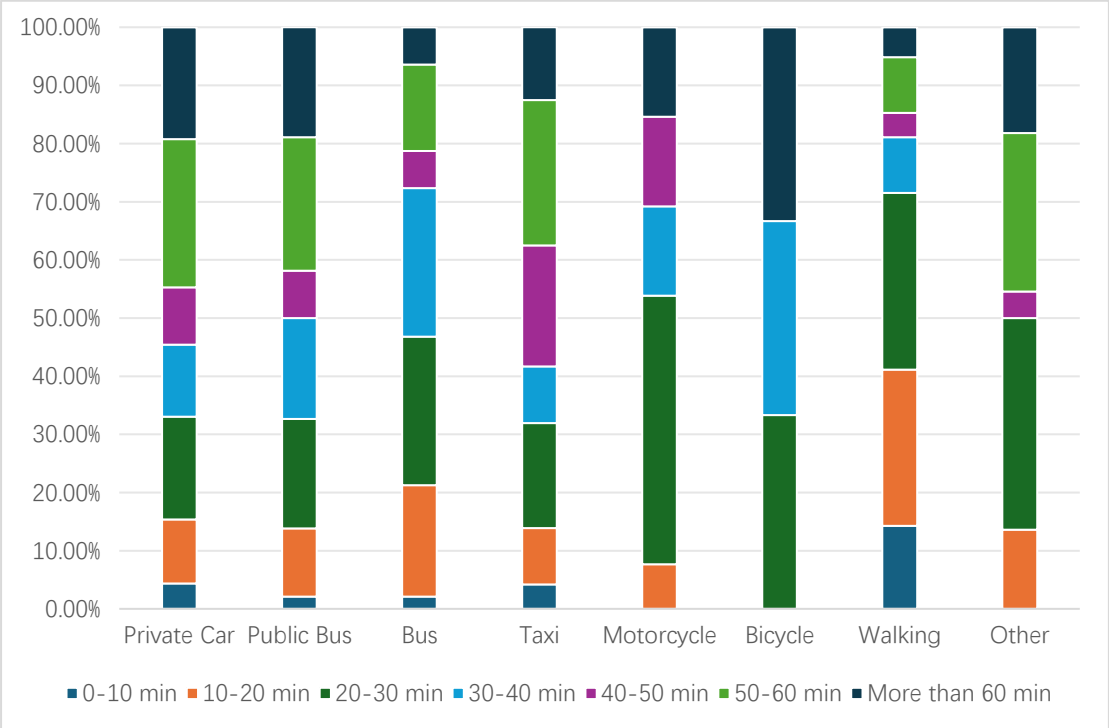
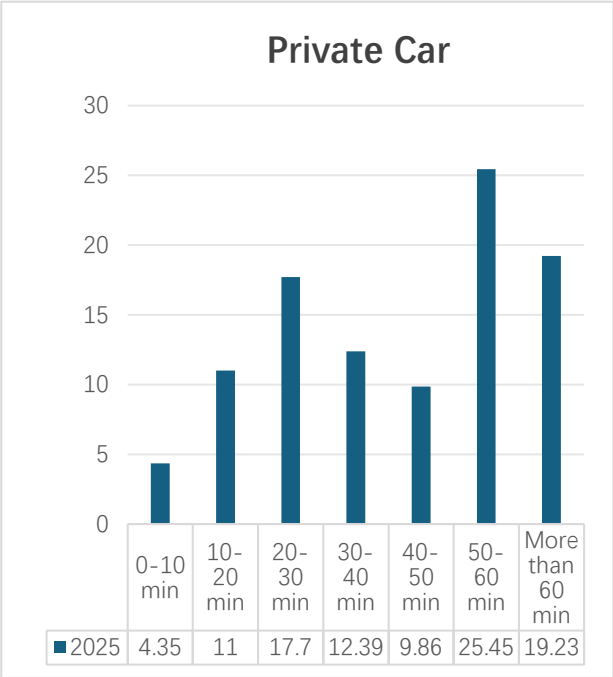
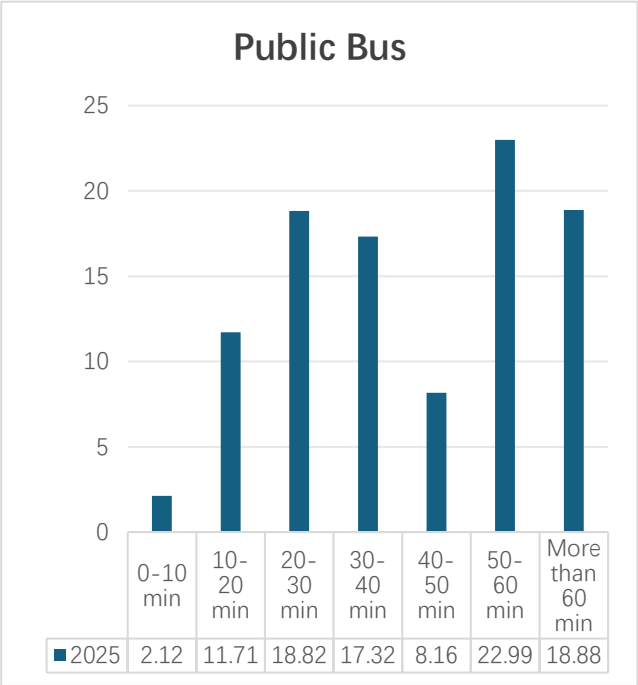
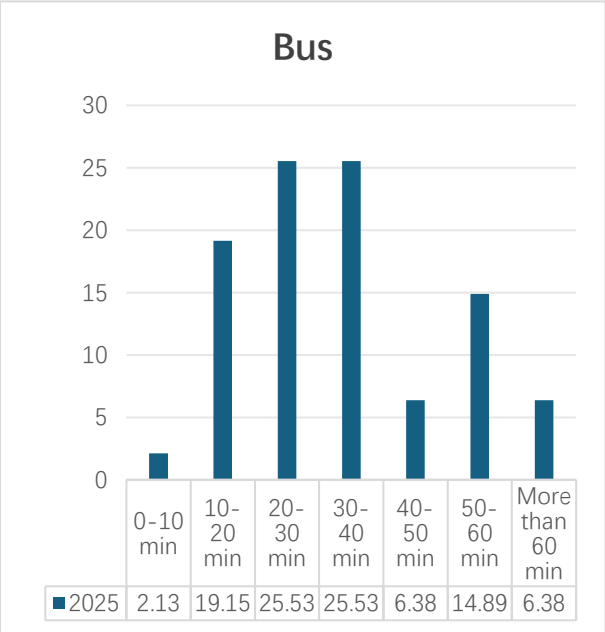
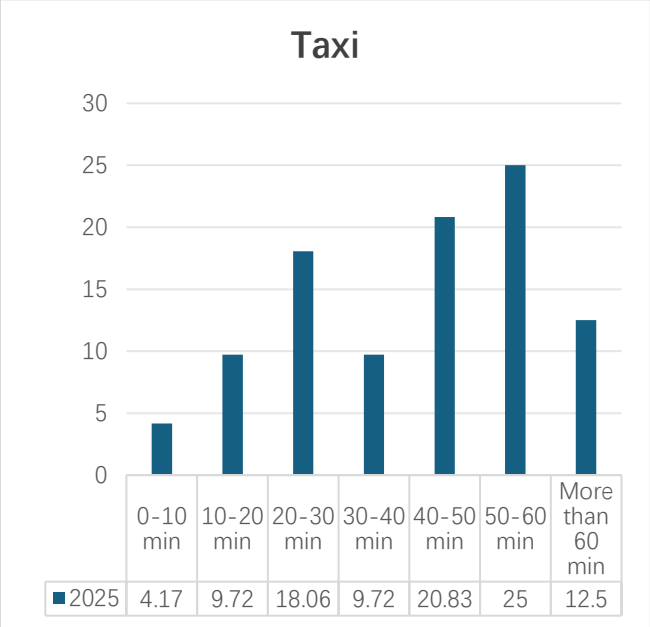


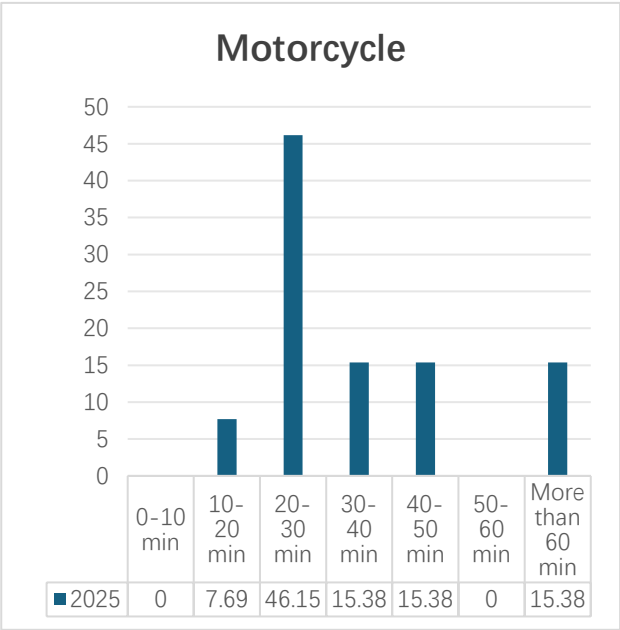
Figure 29 Proportion Composition of Travel Duration of Different Travel Modes in 2025①

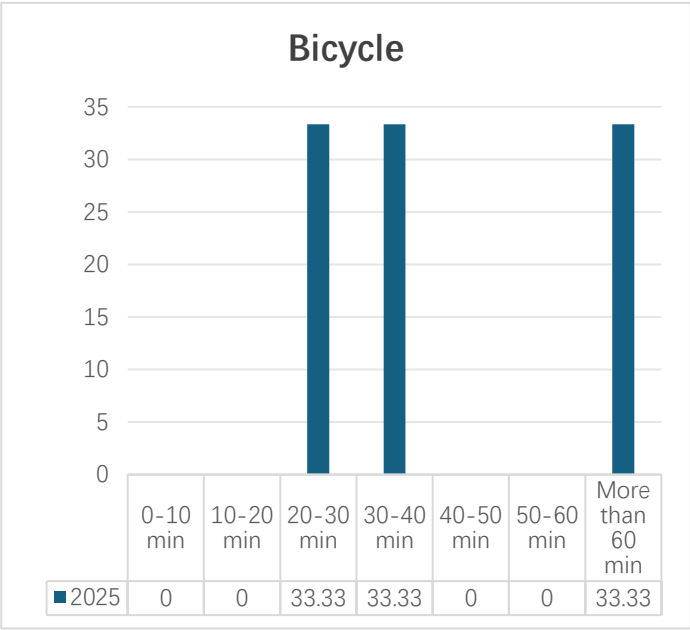

Private Car
30
25
20
15
10
5
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025
4.35
11
17.7
12.39
9.86
25.45
19.23

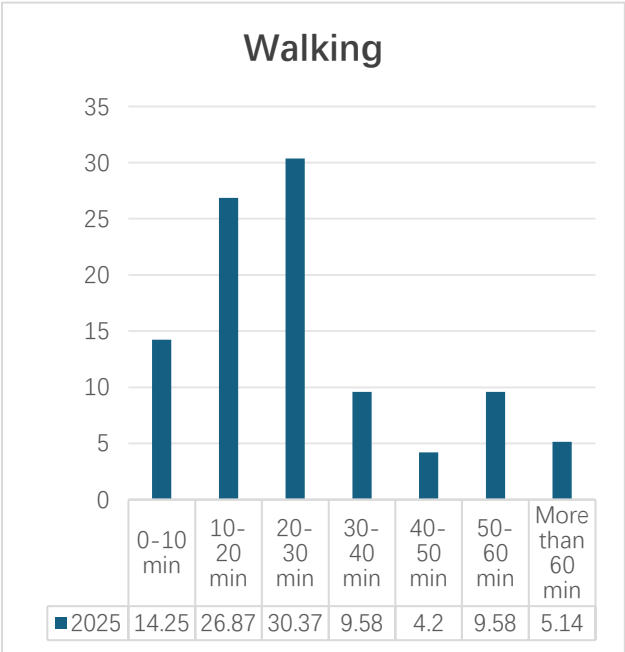

Public Bus
25
20
15
10
5
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025
2.12
11.71
18.82
17.32
8.16
22.99
18.88


Bus
30
25
20
15
10
5
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025
2.13
19.15
25.53
25.53
6.38
14.89
6.38


Taxi
30
25
20
15
10
5
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025
4.17
9.72
18.06
9.72
20.83
25
12.5







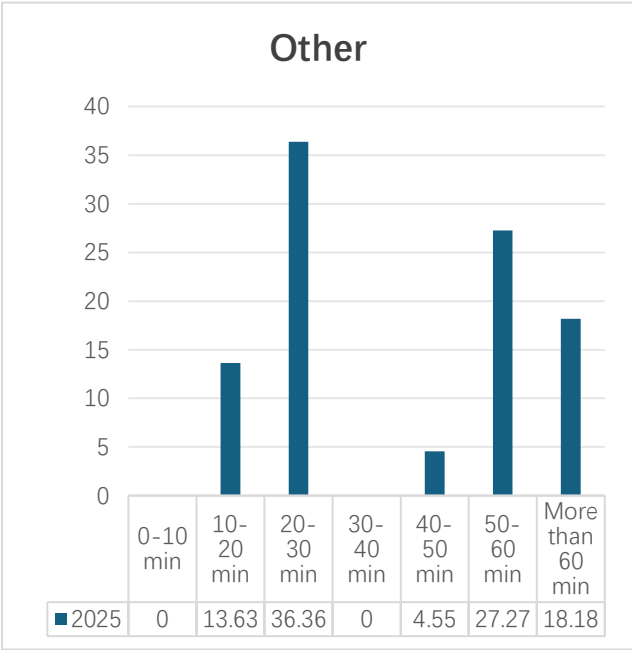


Figure 30 Proportion Composition of Travel Duration of Different Travel Modes in 2025②

Key findings include:

(1) Walking and buses are the primary modes for short-distance travel (0-20 minutes), accounting for 14.25% and 26.87% for the 0-10minutes duration, and 2.13% and 19.15% for the 10-20 minutes duration, respectively.

(2) For medium-duration travels (20-40 minutes), buses, minibuses, and private cars are more prevalent, with minibuses accounting for 25.53% in the 20-30 minutes duration.

(3) For long-distance travels (50+ minutes), private cars, taxis, and buses show significant modal shares, with private cars representing 25.45% and taxis 25% in the 50-60 minutes duration.

(4) Motorcycle and bicycle usage rates remain low, primarily observed in the 20-30-minute and 30-40-minute travel durations.

(5) Walking constitutes a high modal share for short travels but exhibits a declining trend with longer travel durations.

(6) In summary, motorized travel modes (private cars, buses, taxis) dominate medium-to-long-distance travel, whereas walking persists as the predominant mode for short-distance travel.

3.5 Age Distribution of Participants

The majority of survey respondents were residents aged 30-49, constituting a majority of 55.25%. Adolescent (6-19 years old) participation was minimal, at only 3.32%. Detailed breakdowns are shown in Figure 31.

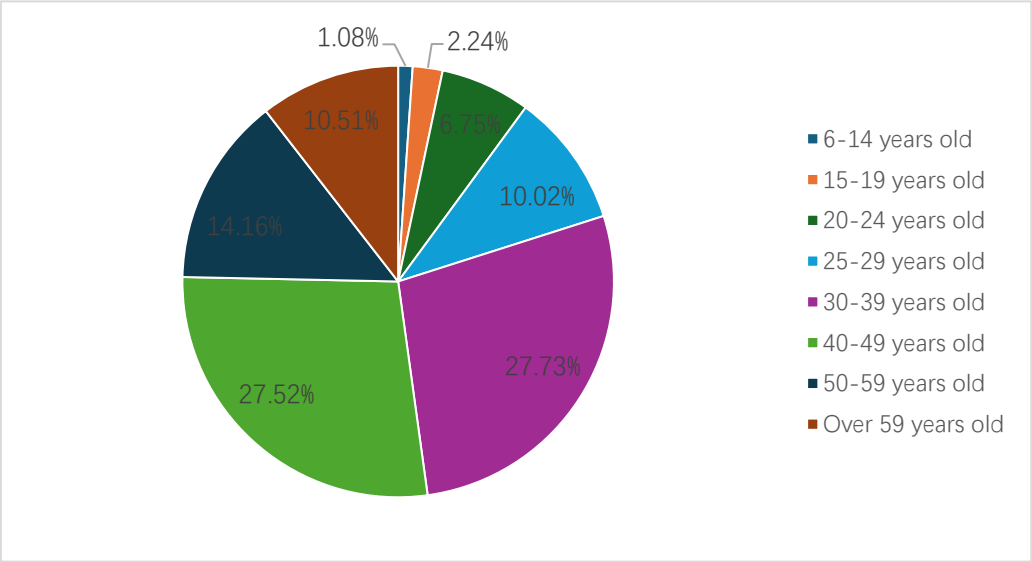


Figure 31 Age Distribution of Participants

3.6 Analysis of Resident Preferences in 2025

Analysis of the current transportation survey findings yields the following conclusions: A decisive majority of residents endorse the construction of the 4-6 lane "Grand Ring Road" linking the Western and Eastern Districts. The survey indicates that the majority of residents would use the ring road frequently if access points are located within 3 km of residential zones, and some residents expressed occasional usage. Complete response statistics are detailed in Figures 32 and 33.

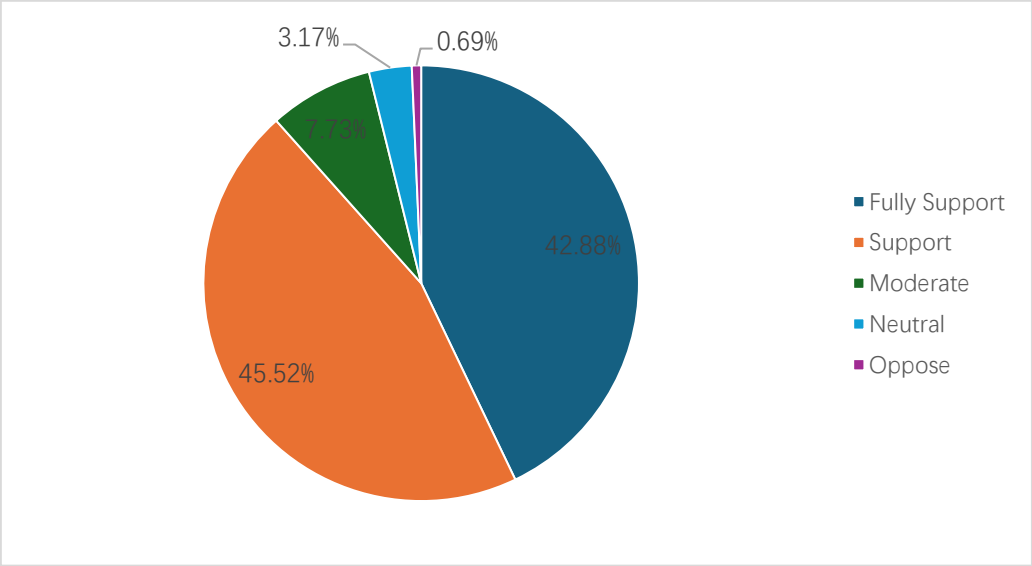


Figure 32 Level of Support for the Grand Ring Road Project

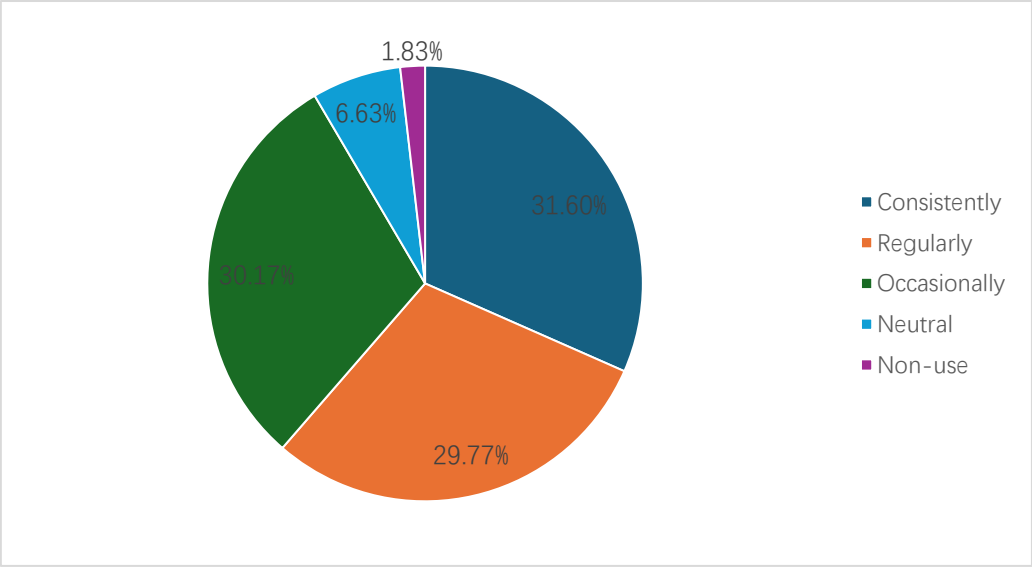


Figure 33 Frequency of Ring Road Usage

Resident Suggestions for the Transportation Plan:

a. Expedite the construction of the ring road.

b. Ensure maximum traffic safety.

c. Incorporate green spaces and adequate lighting along the ring road.

d. Reduce the number of intersections.

e. Locate ring road access points near transit stations or within 500 meters.

f. Extend the duration of pedestrian walkway traffic signals.

g. Include turning lanes and parking spaces in newly constructed roundabouts.

h. Install flood drainage pipelines and improve the drainage system.

i. Set higher speed limits for the ring road.

j. Install speed bumps on the ring road.

k. Increase bus stop coverage in ger districts.

4. Public Evaluation on Ulaanbaatar's Transportation System

4.1 Traffic Issues

The origin-destination survey identified contributing factors to Ulaanbaatar's transportation challenges across three aspects: road infrastructure, public transport operations, and walking/bicycle conditions. Details are illustrated in Figures 34, 35, and 36.

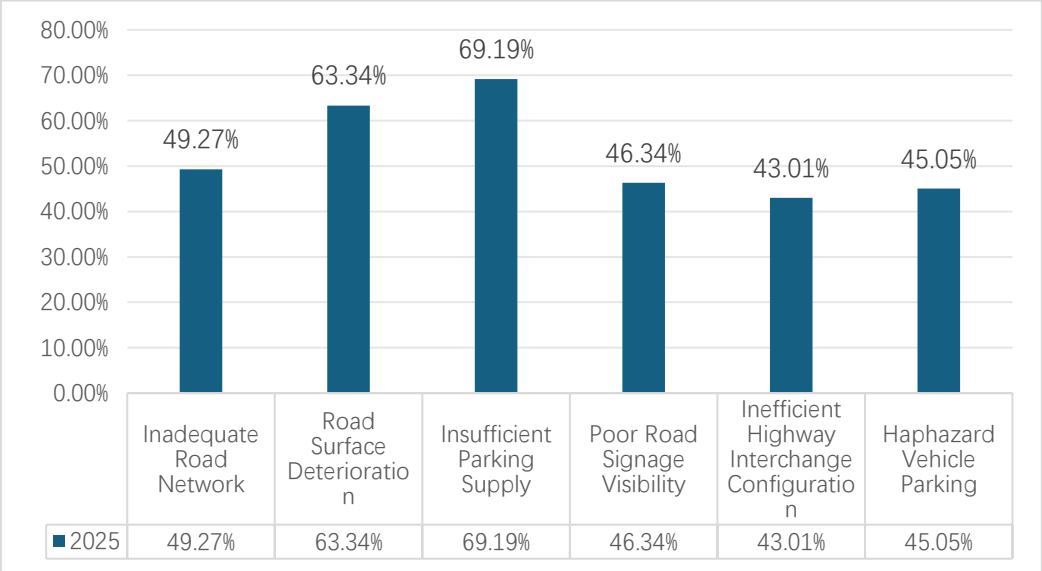


Figure 34 Road Infrastructure

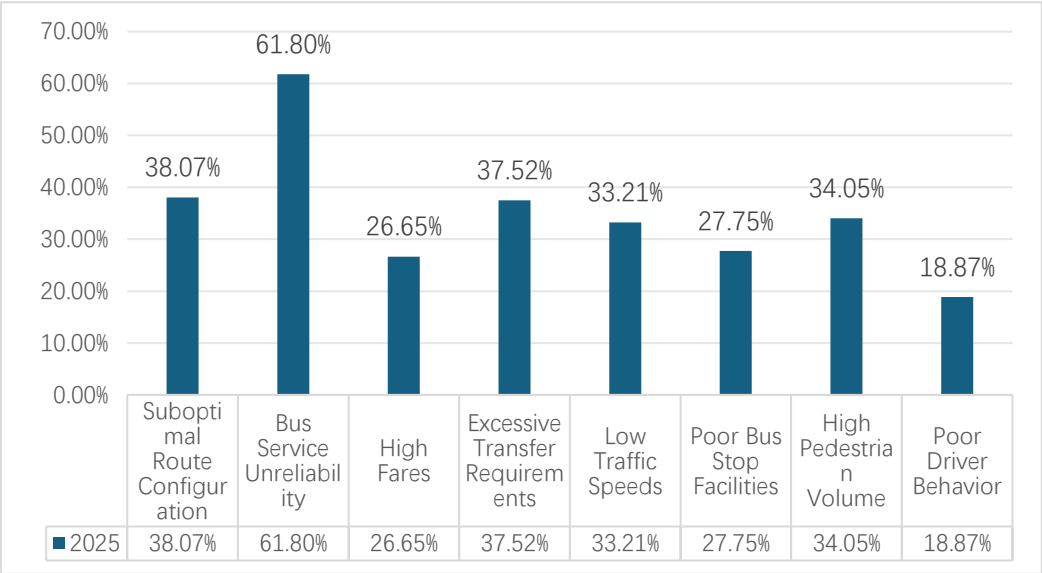


Figure 35 Public Transport Operations

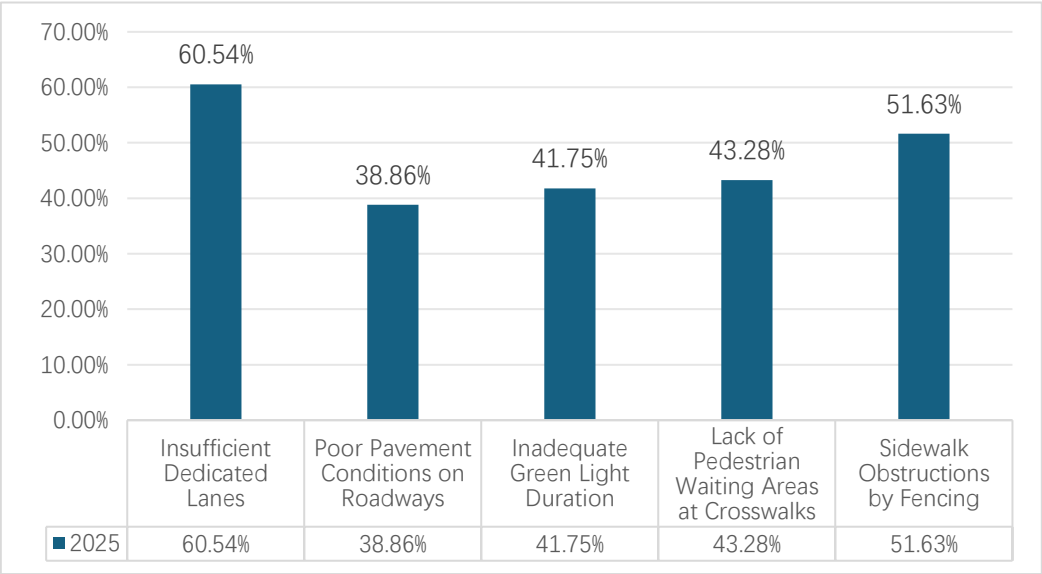


Figure 36 Walking/Bicycle Conditions

Key findings include:

(1) Road Infrastructure

Key Issues:

① Parking shortage (69.19%) was the most frequently reported issue by respondents, indicating a mismatch between vehicle growth and infrastructure.

② Pavement deterioration (63.34%) and insufficient road network coverage (49.27%) reveal deficiencies in maintenance and planning.

③ Unreasonable intersection geometry (43.01%) and unauthorized parking (45.05%) further exacerbate congestion.

Proposed measures: Increase parking supply, rehabilitate roadway surfaces, optimize intersection design, and improve parking management.

(2) Public Transport Operations

Key Issues:

① Unreliable bus schedules (61.80%) and unoptimized routes (38.07%) were the primary sources of passenger dissatisfaction.

② High fares (26.65%) and excessive transfers (37.52%) negatively impact travel experience.

③ Poor stop facilities (34.05%) and driver discourtesy (18.87%) degrade service quality.

Proposed measures: Optimize bus routes and dispatching systems, reduce fares or introduce discounts, upgrade stop facilities, and enhance driver training.

(3) Walking/Bicycle Conditions

Key Issues:

① Absence of pedestrian barriers (51.63%) and deficient segregated cycle tracks (60.54%) endanger vulnerable road users.

② Inadequate pedestrian phase timing (43.28%) and poor pavement conditions (38.86%) impair traffic flow efficiency.

Proposed measures: Implement pedestrian barrier systems, construct protected bicycle corridors, adjust signal timing, and rehabilitate pavement surfaces.

4.2 Congestion Analysis

Traffic congestion in Ulaanbaatar is currently severe. This survey identifies seven major contributing factors. Figure 37 illustrates the proportional distribution of perceived causes among residents.

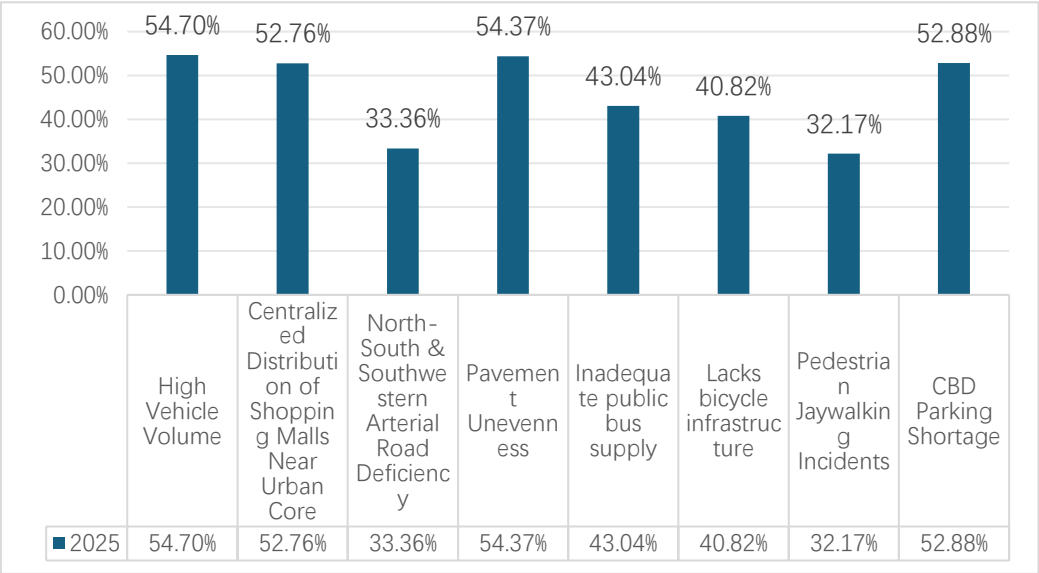


Figure 37 Breakdown of Traffic Congestion Causes

Key findings include:

(1) "Pavement unevenness" (54.37%), "excessive vehicular volume" (54.70%), and "CBD parking scarcity" (52.88%) emerge as three predominant concerns, demonstrating the direct correlation between poor roadway conditions, accelerated private vehicle ownership rates, and parking supply inadequacies.

(2) "Overconcentration of commercial hubs in CBD" (52.76%) and "inadequate N-S/SW arterial connectivity" (33.36%) highlight imbalances in urban planning and road network distribution.

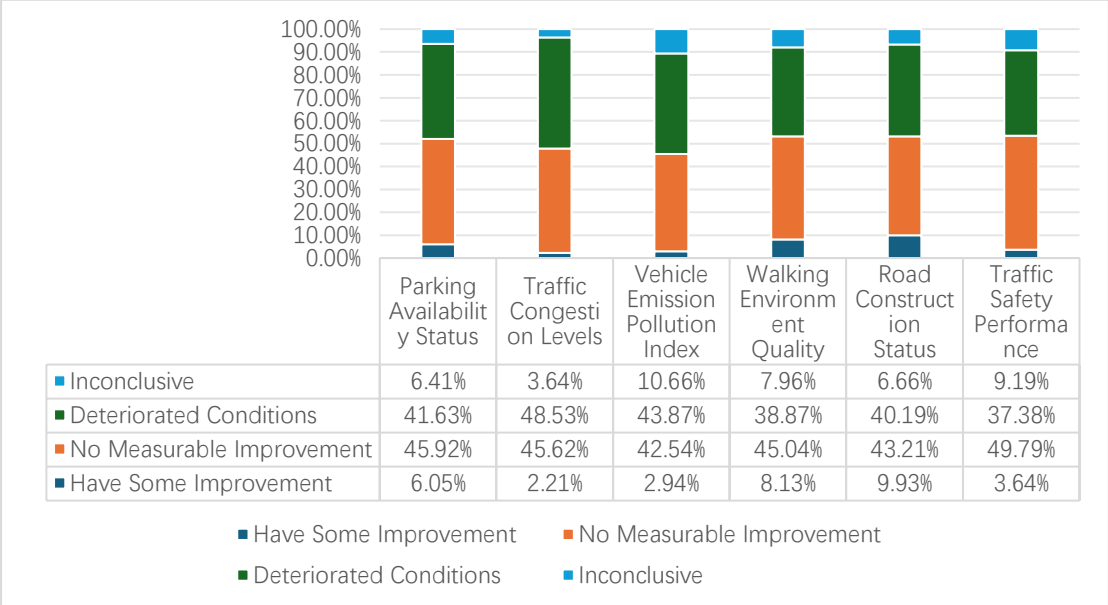
(3) Regarding public transit, "public bus shortage" (43.04%) underscores the imperative for immediate capacity enhancement, while "lack of bicycle lanes" (40.82%) and "pedestrians not using crosswalks" (32.17%) reveal gaps in non-motorized vehicles and pedestrian infrastructure management.

(4) The congestion plaguing Ulaanbaatar predominantly originates from three systemic deficiencies: subpar roadway infrastructure, insufficient N-S/SW corridor development, and an underperforming public transit network.

4.3 Traffic Conditions

Figure 38 illustrates the comparative analysis of Ulaanbaatar's traffic conditions across various aspects versus the previous year. The overall traffic conditions in Ulaanbaatar present a concerning picture, where resident evaluations predominantly indicate "no improvement" or "deterioration" across most sectors. Comprehensive

measures targeting critical issues-including traffic congestion, environmental pollution, and parking shortages-require urgent formulation.



	Parking Availability Status	Traffic Congestion Levels	Vehicle Emission Pollution Index	Walking Environment Quality	Road Construction Status	Traffic Safety Performance
Inconclusive	6.41%	3.64%	10.66%	7.96%	6.66%	9.19%
Deteriorated Conditions	41.63%	48.53%	43.87%	38.87%	40.19%	37.38%
No Measurable Improvement	45.92%	45.62%	42.54%	45.04%	43.21%	49.79%
Have Some Improvement	6.05%	2.21%	2.94%	8.13%	9.93%	3.64%

Figure 38 Year-on-Year Comparison of Traffic Conditions

Key findings include:

(1) Overall Trends

① Prevalence of negative feedback: The aggregated proportions of "no improvement" and "deterioration" responses exceed 80% across all indicators, reflecting a consensus that traffic conditions have either stagnated or worsened.

② Marginal improvements: Merely "road construction status" and "pedestrian environment" categories approach 10% in "have some improvements" ratings, with all other indicators registering below 5%, evidencing negligible enhancement outcomes.

(2) Category-Specific Findings

① Traffic jams: "Worse" responses peak at 48.53%, confirming significant congestion escalation.

The lowest "have some improvements" score (2.21%) reflects negligible policy impact.

② Walking infrastructure: The "have some improvements" category shows a relatively higher share (8.13%).

③ Traffic safety: "No improvement" responses constitute the majority (49.79%), demonstrating prevalent resident dissatisfaction with safety conditions.

④ Vehicle emissions: "Deterioration" ratings represent a considerable percentage (43.87%), revealing persistent worsening of environmental pollution.

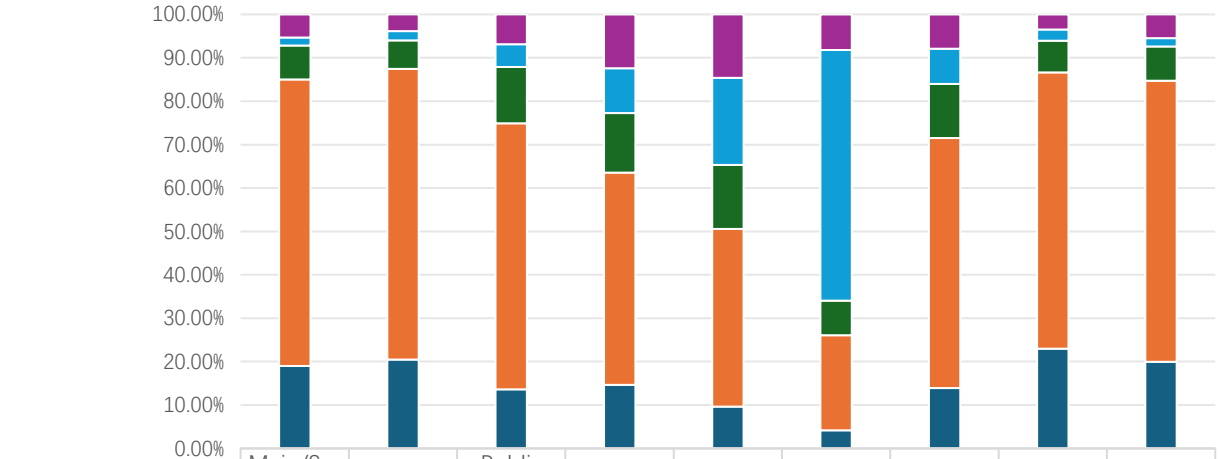
(3) Prominent Issues

① Traffic Congestion and Pollution: Over 40% of respondents reported "deterioration" in both traffic congestion and vehicle emissions, underscoring these as priority issues demanding immediate intervention.

② Parking Shortages: "Deterioration" in parking conditions was reported by 41.63% of respondents, likely attributable to rising vehicle ownership or inefficient parking management.

4.4 Traffic Congestion Mitigation Measures

Figure 39 shows public support for various traffic congestion mitigation measures.



	Main/Service Road System Development	New Road Construction Projects	Public Transit System Restructuring and Updating	Subway System Construction	Expand public bus fleet capacity	Vehicle Tax Increase Implementation	Intelligent Traffic Signal Installation	Parking Supply Expansion Initiatives	Enhance bus stop and taxi stand facilities
Inconclusive	5.29%	3.85%	6.84%	12.38%	14.62%	8.22%	7.91%	3.50%	5.46%
Oppose	1.89%	2.11%	5.25%	10.38%	20.05%	57.74%	8.07%	2.58%	1.96%
Moderately Support	7.83%	6.62%	13.01%	13.71%	14.75%	7.97%	12.48%	7.28%	7.89%
Support	65.96%	66.96%	61.28%	48.90%	40.94%	21.86%	57.64%	63.67%	64.71%
Fully Support	19.03%	20.47%	13.63%	14.63%	9.65%	4.21%	13.90%	22.97%	19.99%

Figure 39 Public Support for Traffic Congestion Mitigation Measures

Key findings include:

(1) Highly Supported Measures

① The construction of main/service roads and new road projects received strong support at 84.99% and 87.43%, respectively. This indicates widespread resident belief that expanding road infrastructure is a direct and effective congestion mitigation solution.

② Improving bus stops and taxi stands also garnered high support (84.70%), demonstrating resident approval for enhanced public transport services.

③ Increasing parking spaces achieved 86.64% support, reflecting clear demand for more parking availability.

(2) Less-Supported Measures

① Increasing vehicle taxes had the lowest support at only 26.07%, suggesting residents' reluctance to bear additional fiscal burdens.

② Expanding the bus fleet received merely 50.59% support, with combined "unsupported" and "uncertain" responses reaching 34.67%, indicating public doubts about its efficacy.

(3) Medium-Level Supported Measures

① Public transit system reconstruction and update and subway construction achieved mid-to-high support at 74.91% and 63.53%, respectively. The relatively lower subway approval rate likely stems from its long construction periods and substantial capital requirements.

② Smart traffic signal installation received 71.54% support, demonstrating strong public anticipation for intelligent transportation solutions.

(4) "Uncertain" Response Distribution

① The "uncertain" proportion regarding subway construction was relatively high (12.38%), potentially attributable to limited public awareness of its planning framework and projected outcomes.

② The "uncertain" proportion regarding bus fleet expansion was also notably high (14.62%), highlighting deficiencies in information transparency.

5. Comparative Analysis of 2012 O-D Survey and 2025 O-D Survey

5.1 Travel Purpose Comparison: 2022 vs 2025

5.1.1 Overall Comparison

Figure 40 presents the overall proportion comparison diagram of travel purposes between 2022 and 2025.

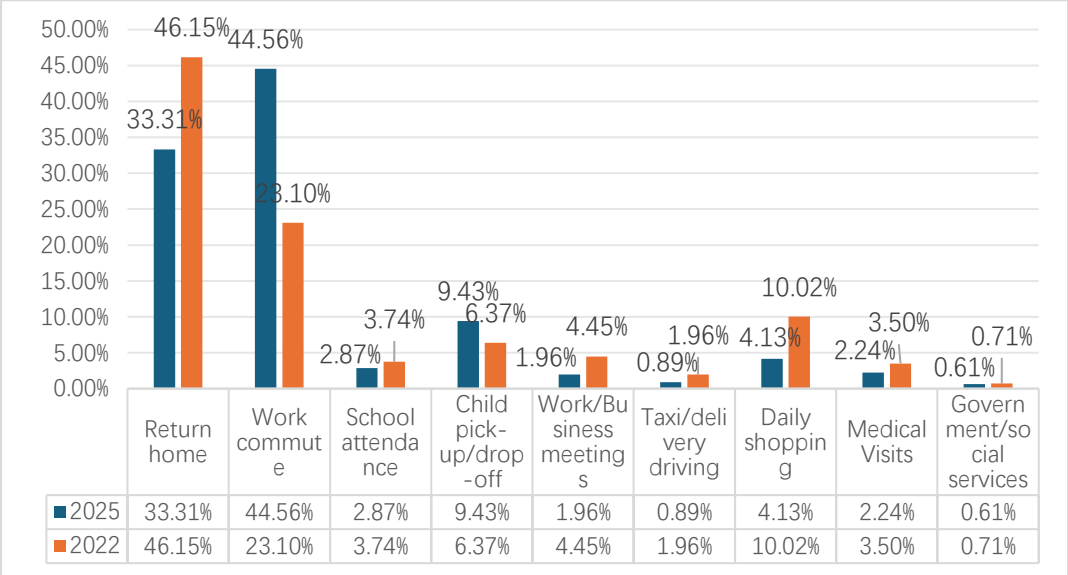


Figure 40 Overall Proportion Comparison Diagram of Travel Purpose: 2022 vs 2025

Key findings include:

(1) In 2025, "home return" and "work commute" dominated travel purposes, with the latter representing 44.56% of total travels - marking an increase from 2022 levels.

(2) Life-related travels (e.g., "daily shopping") showed marginal decline in 2025, potentially due to optimized commercial land use or e-commerce penetration.

(3) "Medical visits" travels registered a slight dip, possibly reflecting enhanced community health outcomes or improvement of medical technology in Ulaanbaatar.

5.1.2 Travel Mode and Travel Purpose Comparison

By statistics, the proportion composition of travel purposes by different travel modes in 2025 are shown in Table 7 and Figure 41, with the 2022 counterpart data shown in Table 8 and Figure 42.

Table 7 Travel Purpose Proportion Composition Table of Different Travel Modes in 2025 (%)

Travel Mode	Return home	Work commute	School attendance	Child pick-up/drop-off	Work/Business meetings	Taxi/delivery driving	Daily shopping	Medical visits	Government/social services	Total
Private car	30.59	46.82	2.11	11.25	2.01	1.20	3.59	2.11	0.34	100.00
Public bus	35.93	43.15	2.86	8.09	1.62	0.50	4.79	2.30	0.75	100.00
Bus	42.55	38.30	0	2.13	10.64	0	2.13	4.26	0	100.00

Taxi	26.39	26.39	13.89	12.50	0	1.39	15.23	4.17	0	100.00
Motorcycle	46.15	30.77	15.38	0	0	0	0	7.69	0	100.00
Bicycle	33.33	33.33	0	0	0	0	33.33	0	0	100.00
Walking	36.45	42.52	4.91	6.78	2.57	0.93	2.57	2.10	1.17	100.00
Others	27.27	63.63	0	0	0	0	0	0	9.09	100.00

Table 8 Travel Purpose Proportion Composition Table of Different Travel Modes in 2022 (%)

Travel Mode	Return home	Work commute	School attendance	Child pick-up/drop-off	Work/Business meetings	Taxi/delivery driving	Daily shopping	Medical visits	Government/social services	Total
Private car	45.27	23.08	0.54	6.96	6.04	3.26	10.30	3.53	1.01	100.00
Public bus	47.34	26.05	8.30	3.29	2.68	0.46	7.18	4.15	0.56	100.00
Bus	34.95	44.66	4.85	1.94	4.85	3.88	1.94	2.91	0	100.00
Taxi	51.60	16.49	4.79	3.19	5.85	1.60	10.10	5.85	0.53	100.00
Motorcycle	32.43	32.43	2.70	8.11	16.22	0	8.11	0	0	100.00
Bicycle	47.37	26.32	5.26	2.63	10.53	0	5.26	0	2.63	100.00
Walking	47.75	18.16	5.26	9.95	1.41	0.19	14.25	2.70	0.32	100.00
Others	60.00	10.00	0	10.00	0	0	10.00	10.00	0	100.00

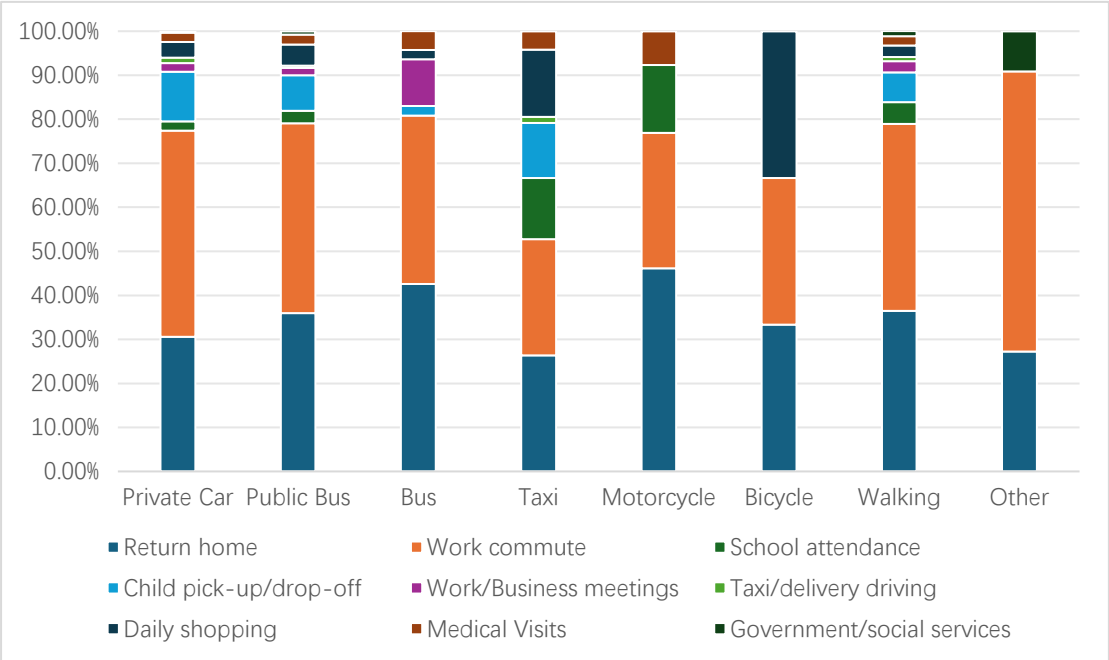


Figure 41 Travel Purpose Proportion Composition Diagram of Different Travel Modes in 2025

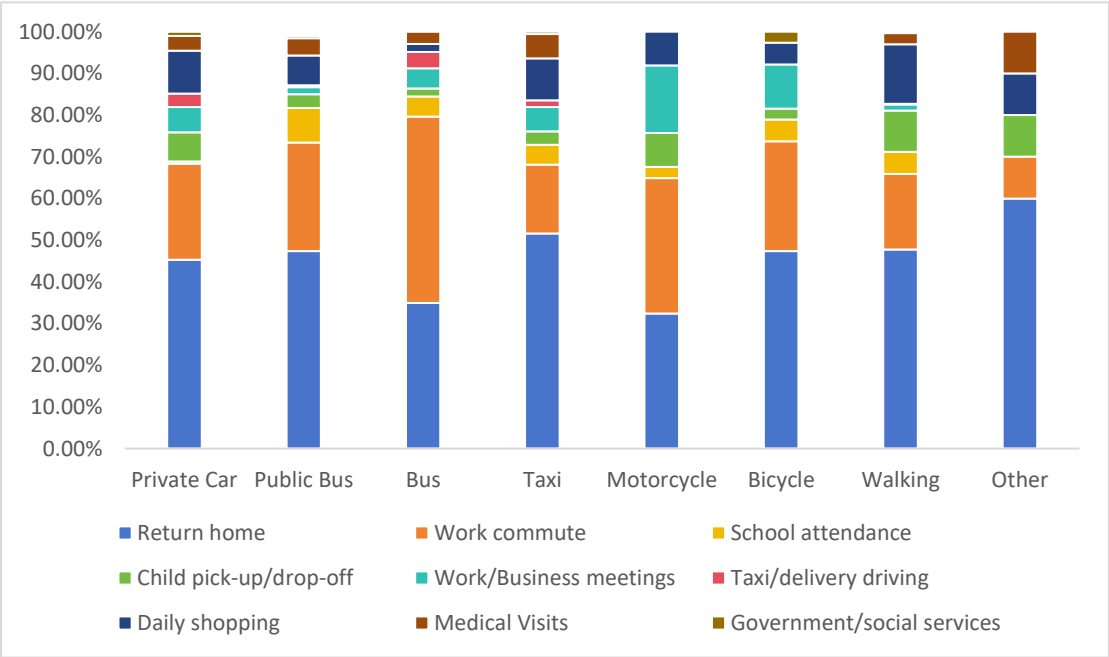


Figure 42 Travel Purpose Proportion Composition Diagram of Different Travel Modes in 2022

Key findings include:

(1) Private car: The share of "Work commute" travels rose markedly in 2025, reflecting increased reliance on private vehicles commuting, possibly linked to reduced public transport satisfaction.

(2) Public bus: The increased "Work commute" share in 2025 contrasts with persistent user dissatisfaction, as the system remains the primary commute choice yet shows no service enhancement.

(3) Walking: The rise in "Work Commute" travels by foot may be attributed to increased short-distance commuting or rising fuel costs.

(4) Work commuting persists as the primary travel purpose, with increased dependence on both private vehicles and public transport, while bus service quality demands improvement.

(5) Life-related travels decreased, indicating either more concentrated urban functions or expanded digital service penetration.

5.2 Travel Mode Comparison: 2022 vs. 2025

5.2.1 Overall Comparison

Table 9: Overall Proportion Comparison Table of Travel Mode between 2022 and 2025(%)

Mode	Private car	Public bus	Bus	Taxi	Motorcycle	Bicycle	Walking	Others	Total
Proportion（2025）	48.82	37.51	1.10	1.68	0.30	0.07	10.00	0.51	100.00
Proportion（2022）	49.09	25.55	1.22	2.67	0.51	0.58	20.14	0.24	100.00

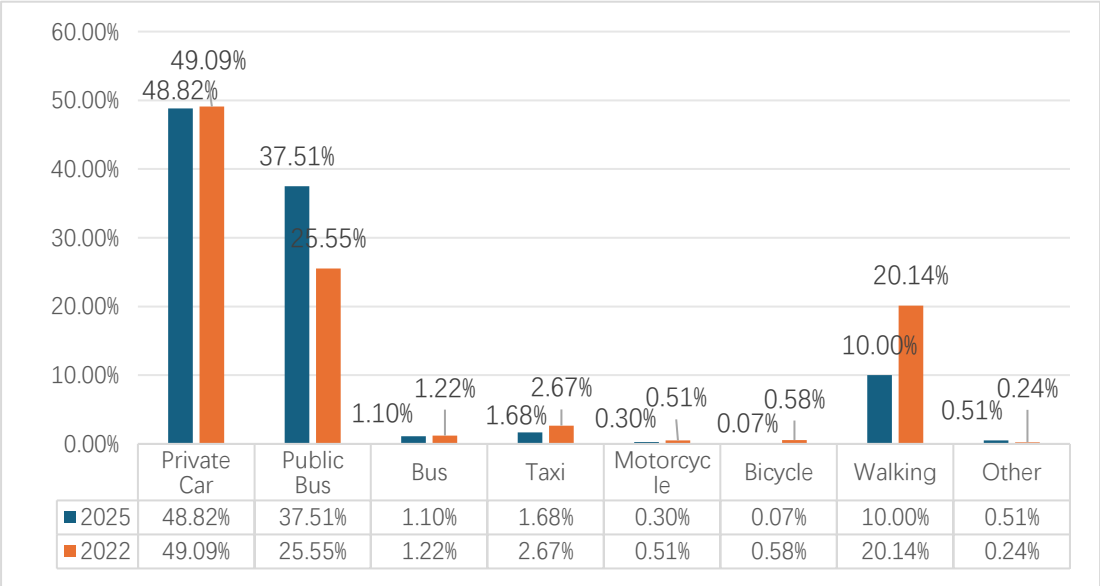


Figure 43: Overall Proportion Comparison Diagram of Travel Mode: 2022 vs 2025

Key findings include:

(1) Private car mode share remained stable, continuing its dominant position.

(2) Public bus mode share rose substantially, potentially resulting from policy support and bus route expansion, while low satisfaction demonstrates that service quality should be enhanced.

(3) Walking mode share decreased significantly, potentially attributable to increased walking distances resulting from urban expansion.

(4) Other transport modes (e.g., bicycle, motorcycle) represented negligible mode shares, highlighting deficiencies in non-motorized infrastructure.

5.2.2 Travel Purposes and Travel Mode

By statistics, the proportion composition of travel mode of different travel purposes in 2025 is shown in Table 10 and Figure 44, with the 2022 counterpart data shown in Table 11 and Figure 45.

Table 10: Proportion Composition Table of Other Travel Modes of Different Travel Purposes in 2025 (%)

Travel Mode	Return home	Work commute	School attendance	Child pick-up/drop-off	Work/Business meetings	Taxi/delivery driving	Daily shopping	Medical visits	Government/social services
Private car	44.87	51.23	35.77	58.17	50.00	65.79	42.61	45.83	26.92
Public bus	40.52	36.30	37.40	32.18	30.95	21.05	43.75	38.54	46.15
Bus	1.40	0.94	0	0.25	5.95	0	0.57	2.08	0
Taxi	1.33	1.00	8.13	2.23	0	2.63	6.25	3.13	0
Motorcycle	0.42	0.21	1.63	0	0	0	0	1.04	0
Bicycle	0.07	0.05	0	0	0	0	0.57	0	0
Walking	10.96	9.53	17.07	7.18	13.10	10.53	6.25	9.38	19.23
Others	0.42	0.73	0	0	0	0	0	0	7.69
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 11 Proportion Composition Table of Other Travel Mode of Different Travel Purposes in 2022 (%)

Travel Mode	Return home	Work commute	School attendance	Child pick-up/drop-off	Work/Business meetings	Taxi/delivery driving	Daily shopping	Medical visits	Government/social services
Private car	47.38	48.60	7.07	52.35	68.73	86.33	49.22	48.33	67.27

Public bus	26.64	29.50	57.95	13.29	16.41	6.47	18.44	30.48	20.00
Bus	1.02	2.63	1.77	0.41	1.55	2.88	0.26	1.12	0
Taxi	2.76	1.77	3.18	1.23	3.41	2.16	2.47	4.09	1.82
Motorcycle	0.34	0.69	0.35	0.61	1.86	0	0.39	0	0
Bicycle	0.51	0.57	0.71	0.20	1.24	0	0.26	0	1.82
Walking	21.17	16.20	28.98	31.70	6.81	2.16	28.83	15.61	9.09
Others	0.17	0.06	0	0.20	0	0	0.13	0.37	0
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

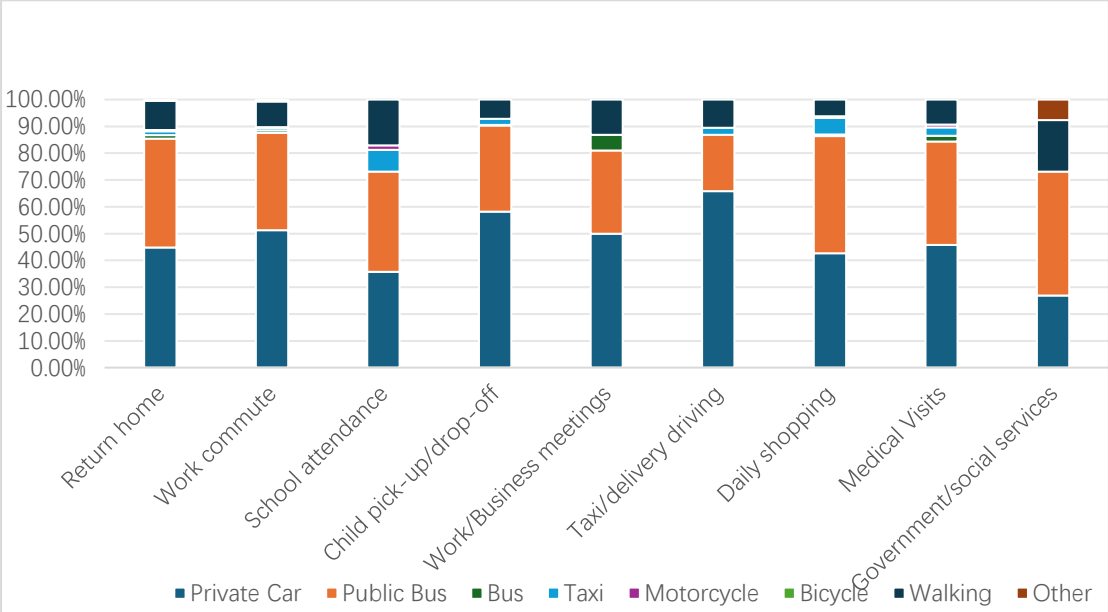


Figure 44 Proportion Composition Diagram of Other Travel Mode of Different Travel Purposes in 2025

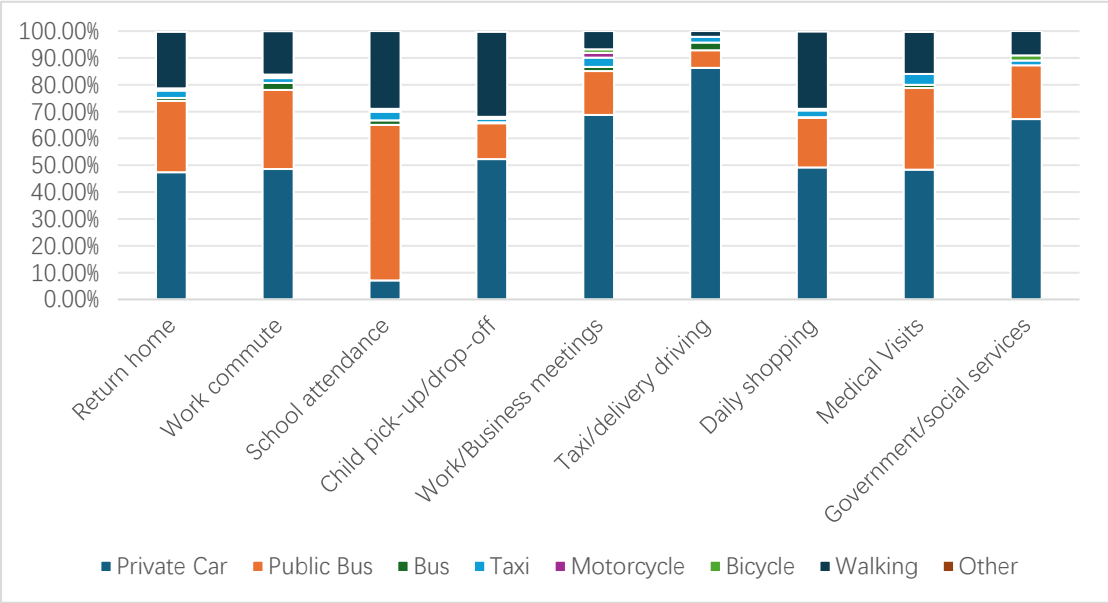


Figure 45 Proportion Composition Diagram of Other Travel Mode of Different Travel Purposes in 2022

Key findings include:

(1) Work commute: Private cars (51.23%) and public bus (36.30%) were the dominant modes in 2025. While public bus mode share grew from 2022 levels, private cars maintained their modal superiority.

(2) Child pick-up/drop-off: Private car usage increased to 58.17% in 2025 (from 52.35% in 2022), reflecting parental preference for private transport, potentially stemming from perceived safety concerns regarding public transit.

(3) Daily shopping: The share of walking drops sharply from 28.83% (2022) to 6.25% (2025), likely resulting from commercial center centralization or e-commerce adoption.

(4) Private cars and public buses remain the primary modes, but public transit's development potential is constrained by persistent user dissatisfaction.

(5) The sharp decline in walking requires intervention—walkability enhancements are needed to encourage environment-friendly travel.

5.3 Travel Duration Comparison: 2022 vs. 2025

5.3.1 Overall Comparison

Figure 46 presents the proportion diagram of travel duration between 2022 and 2025.

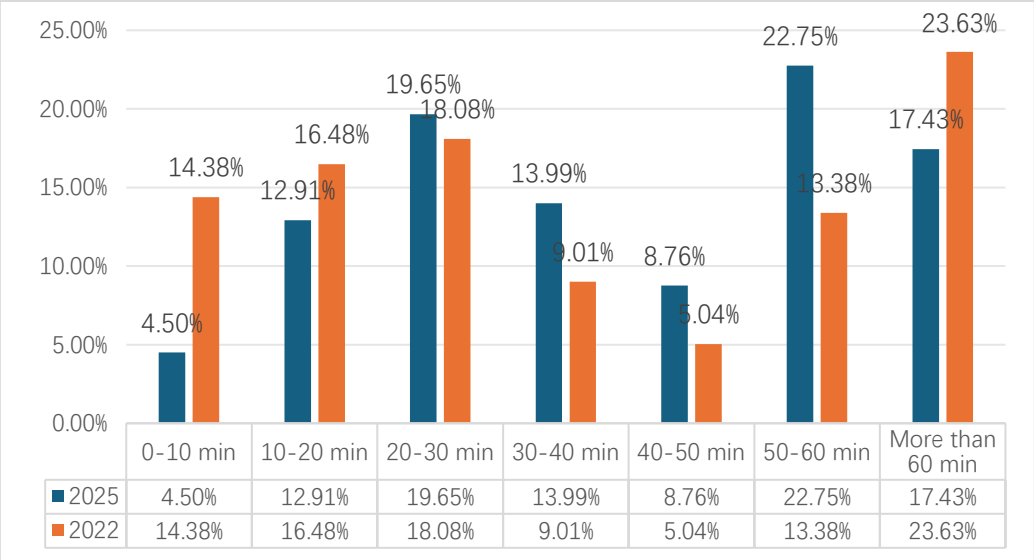


Figure 46 Overall Proportion Comparison Diagram of Travel Duration

Key findings include:

(1) Short-duration travels (0-20 min): The share declined in 2025, indicating extended commute distances resulting from urban sprawl.

(2) Long-duration travels (50-60 min and more tan 60 min): The mode share increased overall in 2025, potentially associated with deteriorating traffic conditions.

5.3.2 Travel Purpose and Travel Duration Comparison

By statistics, the proportion composition of travel duration of different travel purposes in 2025 are shown in Table 12 and Figure 47, with the 2022 counterpart data shown in Table 13 and Figure 48. A detailed comparison is illustrated in Figure 49.

Table 12 Proportion Composition Table of Travel Duration of Different Travel Purposes in 2025 (%)

Travel Duration	Return home	Work commute	School attendance	Child pick-up/drop-off	Work/Business meetings	Taxi/delivery driving	Daily shopping	Medical visits	Government/social services
0-10 min	3.87	4.30	2.44	7.20	5.95	8.33	3.45	6.25	0
10-20 min	11.67	12.91	17.07	16.38	27.38	13.89	4.60	19.79	0
20-30 min	18.00	20.42	31.71	23.57	10.71	13.89	16.09	14.58	26.92
30-40 min	13.64	15.75	15.45	10.67	13.10	11.11	10.34	9.38	7.69
40-50 min	9.70	8.14	5.69	9.18	7.14	0	13.79	4.17	19.23
50-60 min	22.93	22.99	18.70	22.33	13.10	36.11	31.03	14.58	26.92
More than 60 min	20.18	15.49	8.94	10.67	22.62	16.67	20.69	31.25	19.23
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 13 Proportion Composition Table of Travel Duration of Different Travel Purposes

in 2022 (%)

Travel Duration	Return home	Work commute	School attendance	Child pick-up/drop-off	Work/Business meetings	Taxi/delivery driving	Daily shopping	Medical visits	Government/social services
0-10 min	14.73	12.29	14.93	32.65	4.09	7.28	16.78	12.27	12.73
10-20 min	14.76	17.53	16.67	23.47	19.59	13.25	19.77	15.61	12.73
20-30 min	17.52	19.05	22.22	20.82	17.84	19.21	19.64	16.36	10.91
30-40 min	8.49	10.15	11.46	6.33	7.60	14.57	10.53	8.92	5.68
40-50 min	4.46	5.98	6.60	3.27	4.39	4.64	4.68	5.95	7.27
50-60 min	13.32	12.74	11.11	7.14	16.37	15.23	12.48	15.99	14.55
More than 60 min	26.72	22.27	17.01	6.33	30.12	25.83	16.12	24.91	32.73
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

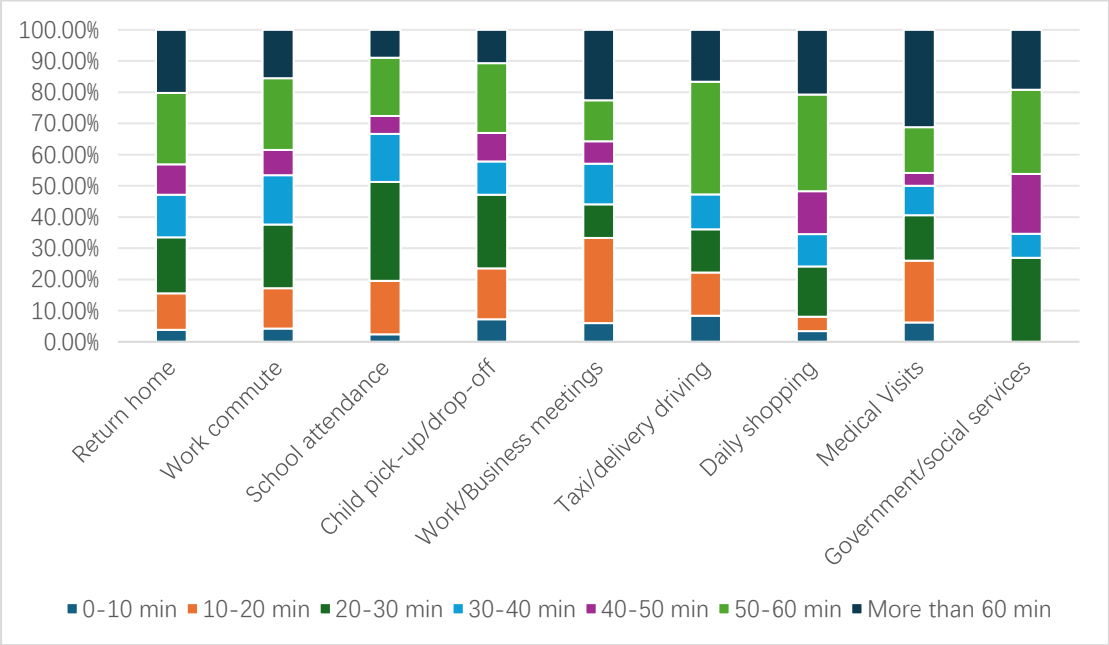


Figure 47 Proportion Composition of Travel Duration of Different Travel Purposes in 2025

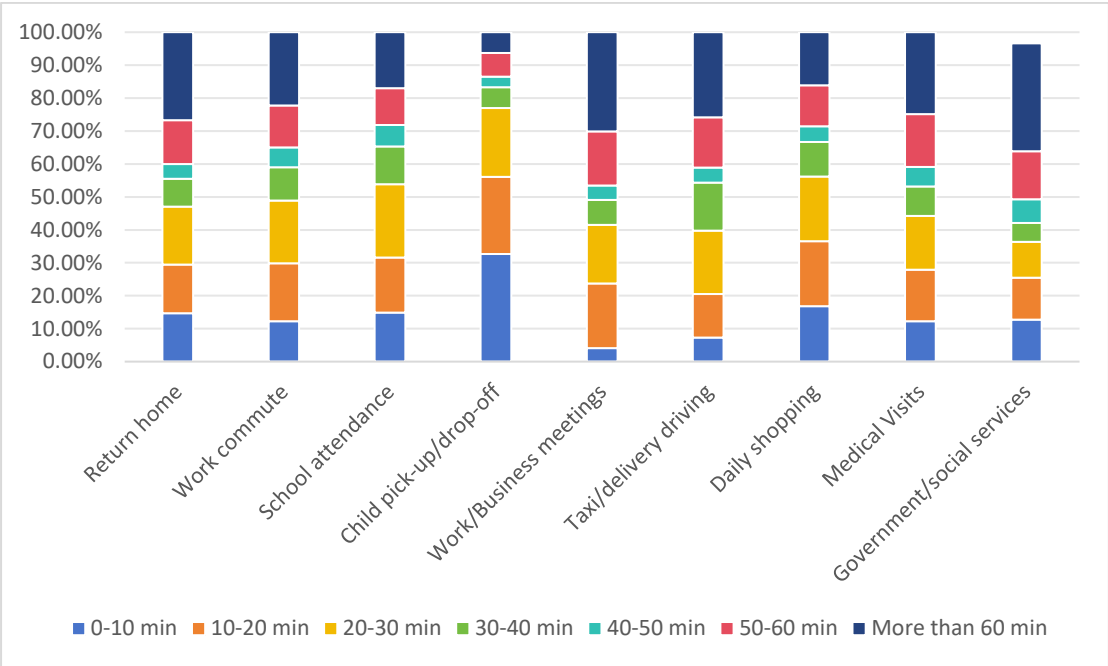
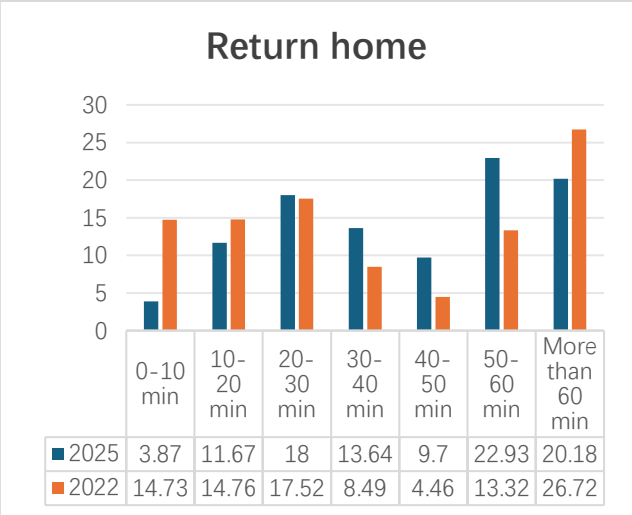
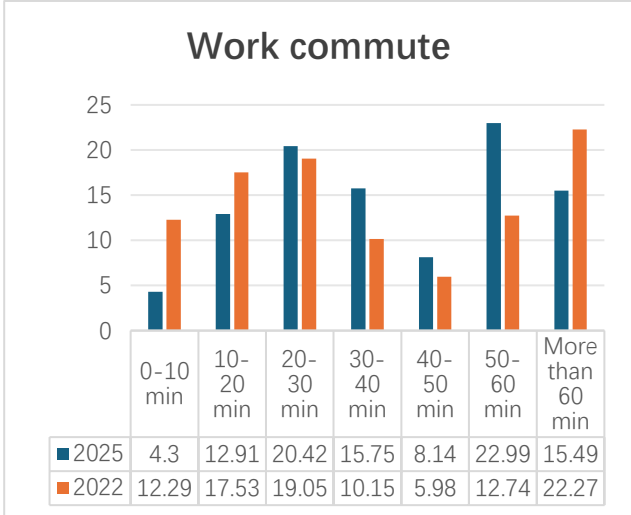


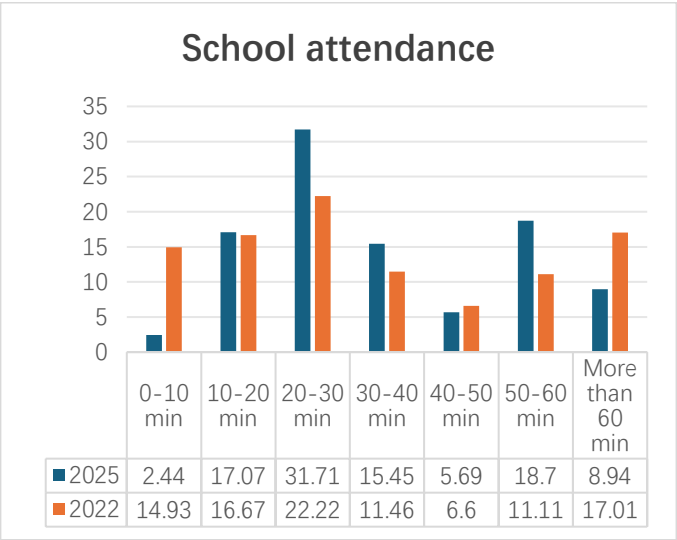
Figure 48 Proportion Composition of Travel Duration of Different Travel Purposes in 2022



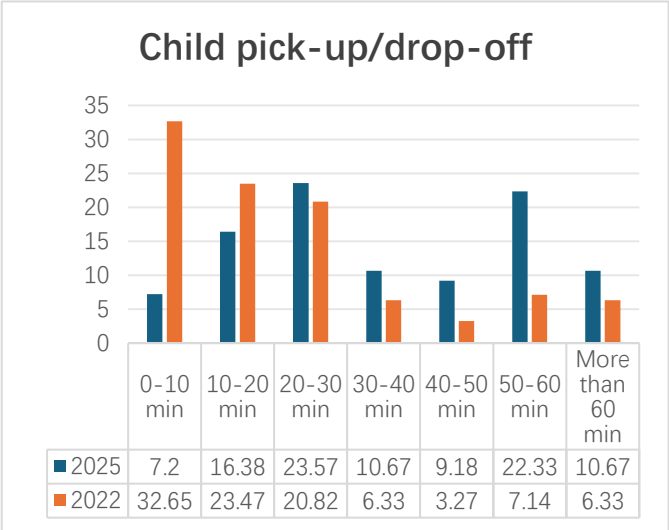
	0-10 min	10-20 min	20-30 min	30-40 min	40-50 min	50-60 min	More than 60 min
2025	3.87	11.67	18	13.64	9.7	22.93	20.18
2022	14.73	14.76	17.52	8.49	4.46	13.32	26.72



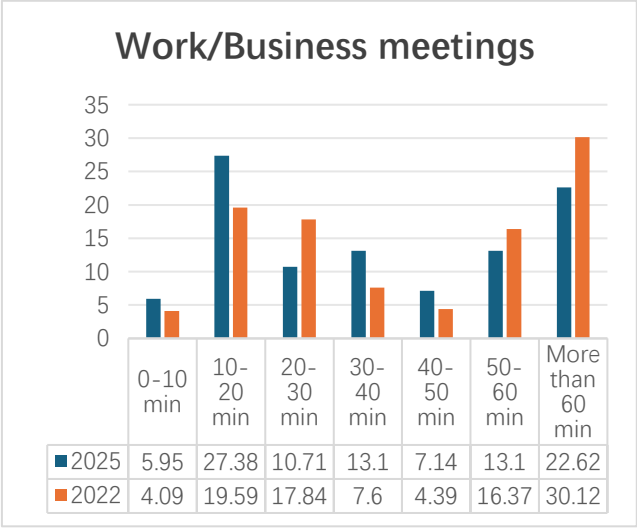
	0-10 min	10-20 min	20-30 min	30-40 min	40-50 min	50-60 min	More than 60 min
2025	4.3	12.91	20.42	15.75	8.14	22.99	15.49
2022	12.29	17.53	19.05	10.15	5.98	12.74	22.27



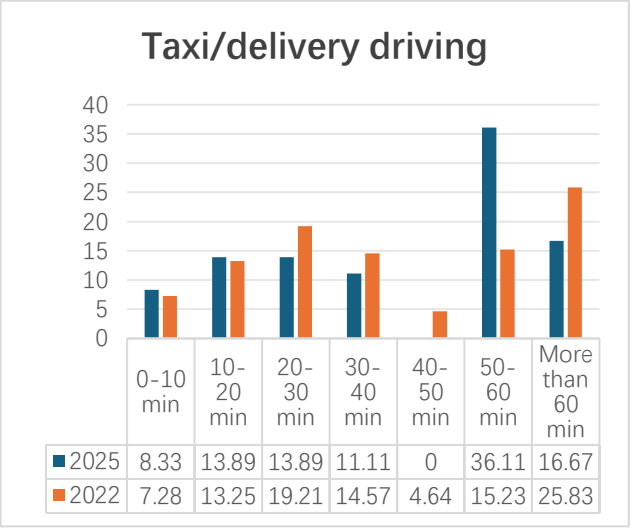
	0-10 min	10-20 min	20-30 min	30-40 min	40-50 min	50-60 min	More than 60 min
2025	2.44	17.07	31.71	15.45	5.69	18.7	8.94
2022	14.93	16.67	22.22	11.46	6.6	11.11	17.01



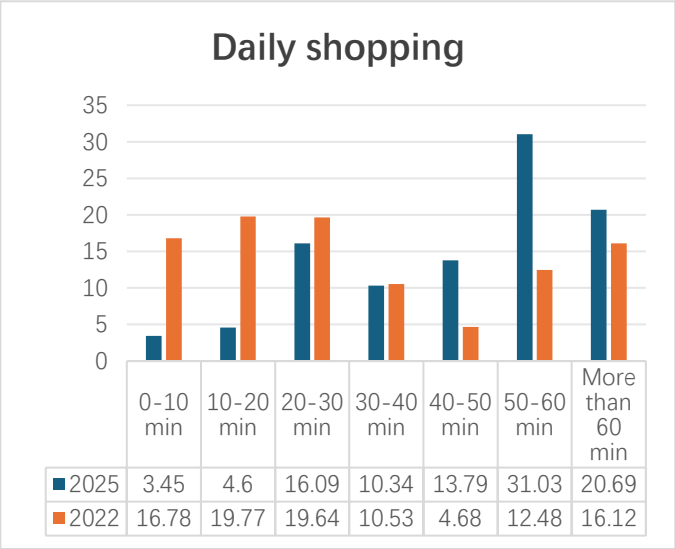
	0-10 min	10-20 min	20-30 min	30-40 min	40-50 min	50-60 min	More than 60 min
2025	7.2	16.38	23.57	10.67	9.18	22.33	10.67
2022	32.65	23.47	20.82	6.33	3.27	7.14	6.33

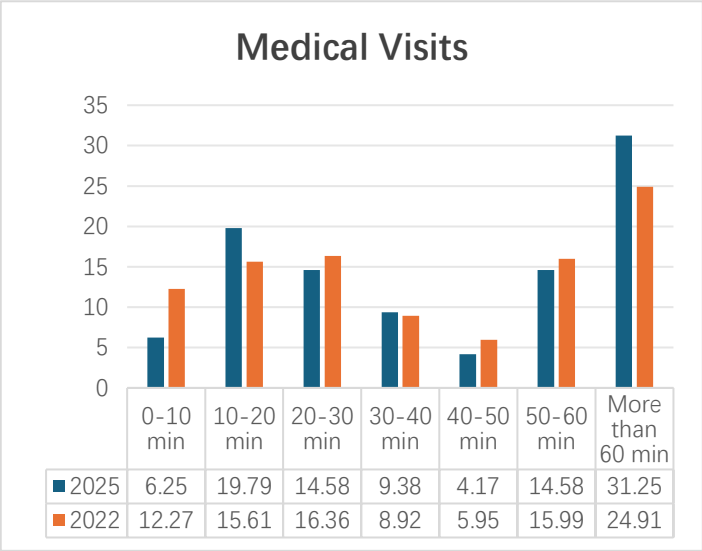


	0-10 min	10-20 min	20-30 min	30-40 min	40-50 min	50-60 min	More than 60 min
2025	5.95	27.38	10.71	13.1	7.14	13.1	22.62
2022	4.09	19.59	17.84	7.6	4.39	16.37	30.12



	0-10 min	10-20 min	20-30 min	30-40 min	40-50 min	50-60 min	More than 60 min
2025	8.33	13.89	13.89	11.11	0	36.11	16.67
2022	7.28	13.25	19.21	14.57	4.64	15.23	25.83





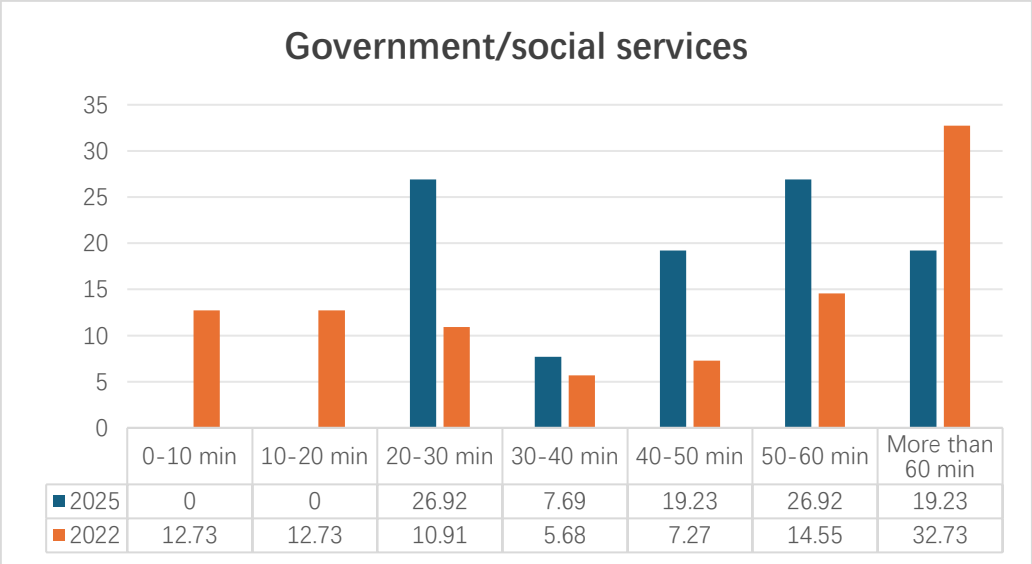


Figure 49: Proportion Composition of Travel Duration of Different Travel Purposes in 2022 and 2025

Key findings include:

(1) For travels categorized as "Return Home" and "Work Commute ", the proportion of short-duration travels (0-10 min) showed a significant decline (Return Home: from 14.73% to 3.87%; Work Commute: from 12.29% to 4.3%), whereas long-duration travels (50-60 min and more than 60 min) exhibited marked increases (Return Home: 50-60 min rose from 13.32% to 22.93%, though travels exceeding 60 min decreased from 26.72% to 20.18%; Work Commute: 50-60 min increased from

12.74% to 22.99%, while travels more than 60 min declined from 22.27% to 15.49%). This pattern potentially indicates extended commuting distances or aggravated traffic congestion.

(2) The proportion of short-duration travels for "School Attendance" and "Child Pick-up/Drop-off" also declined (School Attendance: from 14.93% to 2.44%; Child Pick-up/Drop-off: from 32.65% to 7.2%). However, medium- and long-duration travels for "Child Pick-up/Drop-off" saw a notable increase, indicating that parents may require more time to complete these travels.

(3) Overall, between 2022 and 2025, there were marked shifts in travel duration distributions by travel purpose among Ulaanbaatar residents. Residents' travel times in Ulaanbaatar demonstrate a clear concentration toward medium and long durations, with particularly pronounced trends in commuting and work-related travels, potentially requiring more sophisticated approaches to urban planning and traffic management.

5.3.3 Travel Mode and Travel Duration Comparison

By statistics, the proportion composition of travel duration of different travel modes in 2025 is shown in Table 14 and Figure 50, with the 2022 counterpart data shown in Table 15 and Figure 51. A detailed comparison is illustrated in Figure 52.

Table 14 Travel Duration Proportion Composition Table of Different Travel Modes in 2025 (%)

Travel Duration	Private car	Public bus	Bus	Taxi	Motorcycle	Bicycle	Walking	Others
0-10 min	4.35	2.12	2.13	4.17	0	0	14.25	0
10-20 min	11.00	11.71	19.15	9.72	7.69	0	26.87	13.63
20-30 min	17.70	18.82	25.53	18.06	46.15	33.33	30.37	36.36
30-40 min	12.39	17.32	25.53	9.72	15.38	33.33	9.58	0
40-50 min	9.86	8.16	6.38	20.83	15.38	0	4.20	4.55
50-60 min	25.45	22.99	14.89	25.00	0	0	9.58	27.27
More than 60 min	19.23	18.88	6.38	12.50	15.38	33.33	5.14	18.18

Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 15Travel Duration Proportion Composition Table of Different Travel Modes in 2022 (%)

Travel Duration	Private car	Public bus	Bus	Taxi	Motorcycle	Bicycle	Walking	Others
0-10 min	10.44	5.49	5.41	10.74	17.39	22.64	36.33	4.55
10-20 min	15.20	8.94	9.91	20.66	21.74	26.42	28.81	36.36
20-30 min	19.10	15.08	10.81	20.25	15.22	16.98	19.59	18.18
30-40 min	9.85	10.58	9.01	11.16	2.17	13.21	4.94	4.55
40-50 min	5.11	7.21	3.60	5.79	2.17	5.66	2.03	4.55
50-60 min	14.98	16.72	12.61	18.60	15.22	5.66	4.56	18.18
More than 60 min	25.33	35.98	48.65	12.81	26.09	9.43	3.73	13.64
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

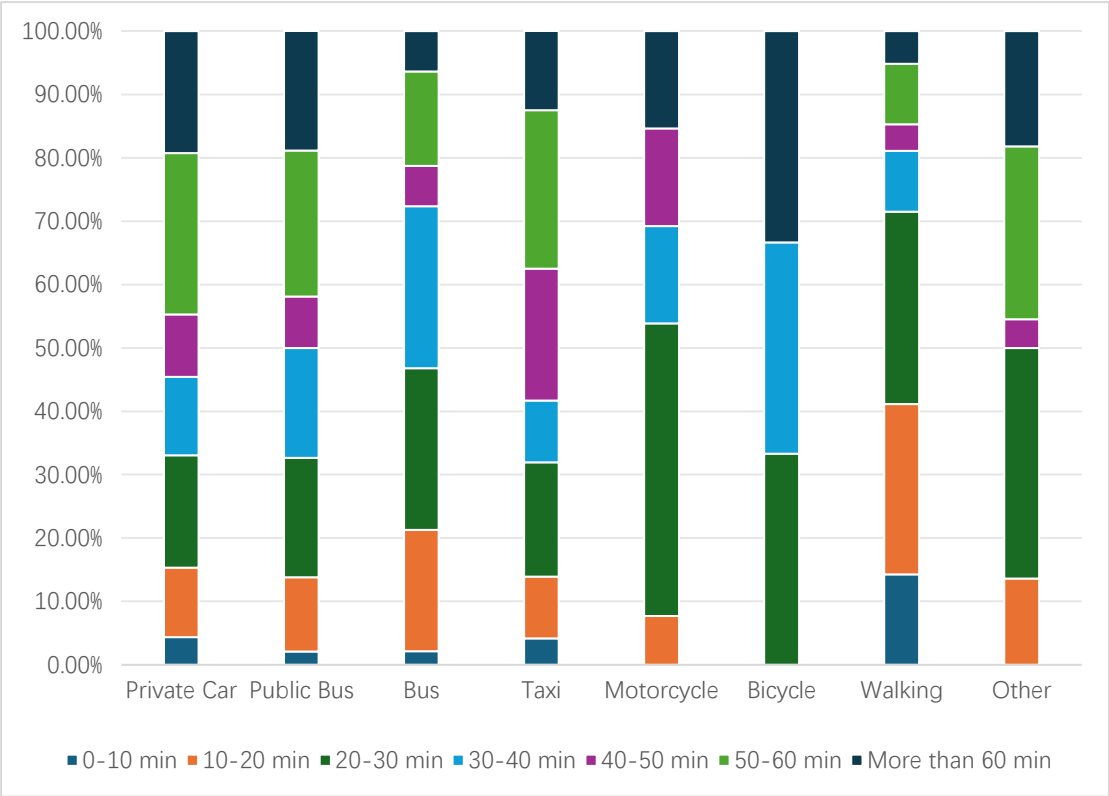


Figure 50 Proportion Composition of Travel Duration of Different Travel Modes in 2025①

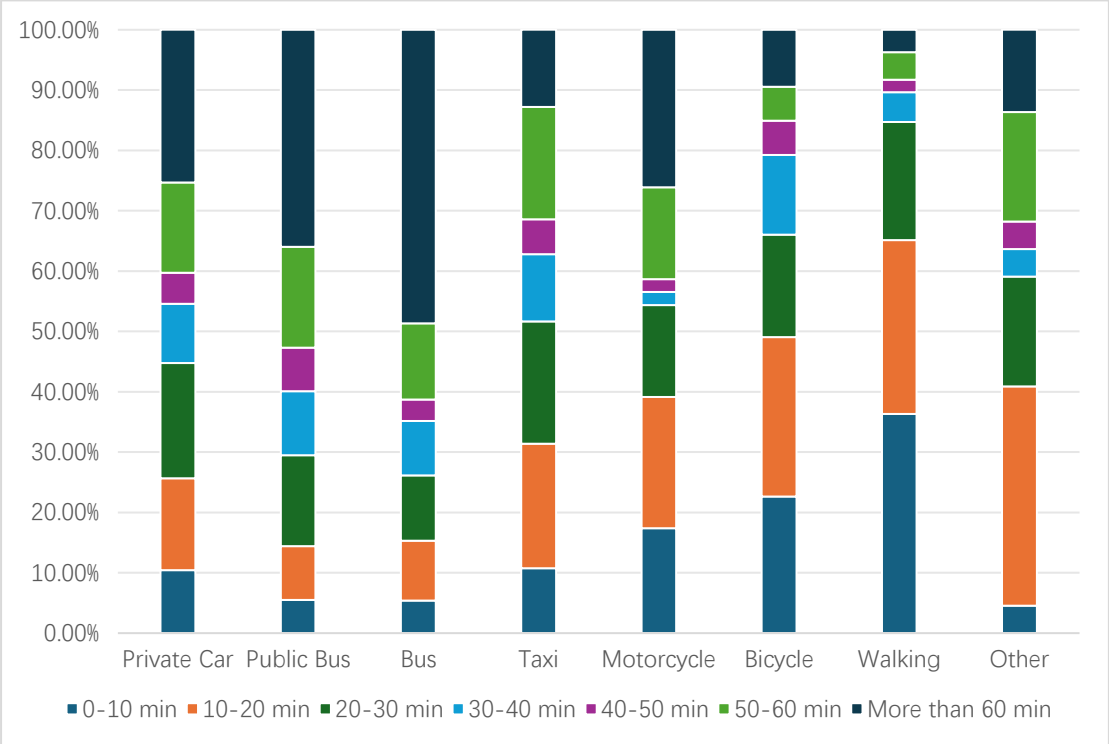
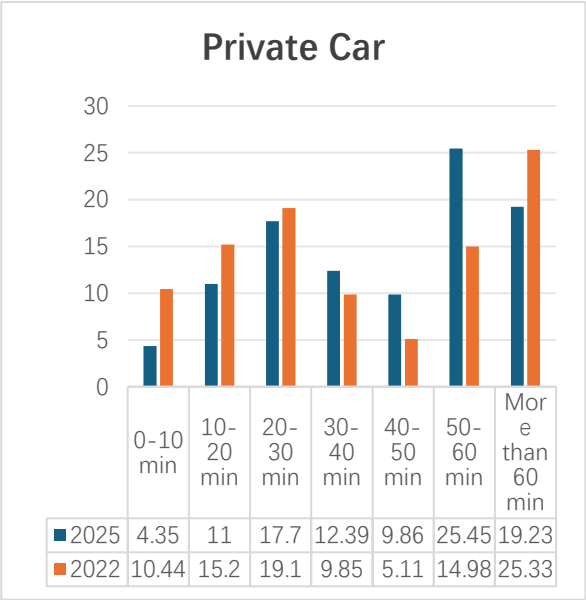
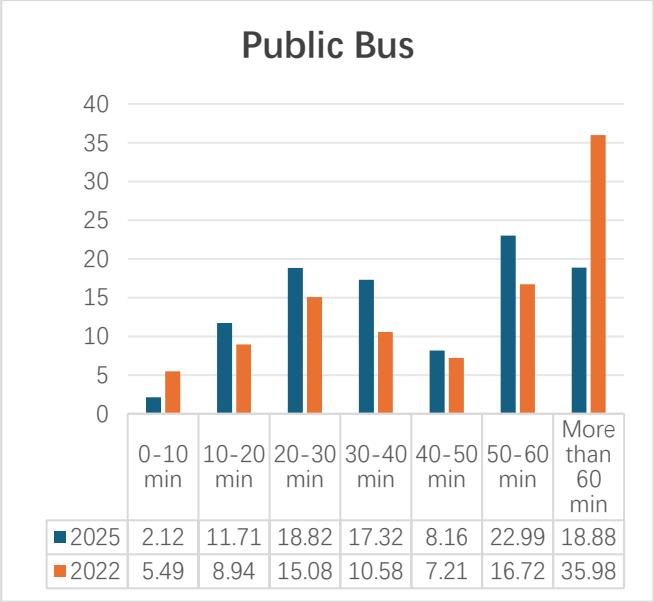
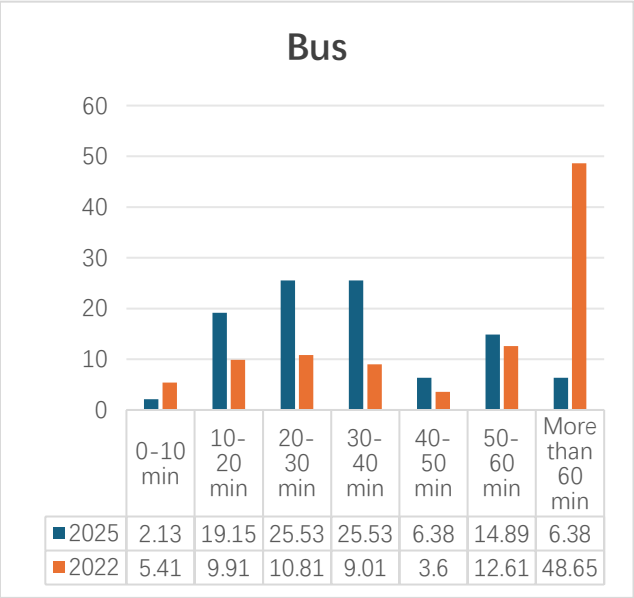
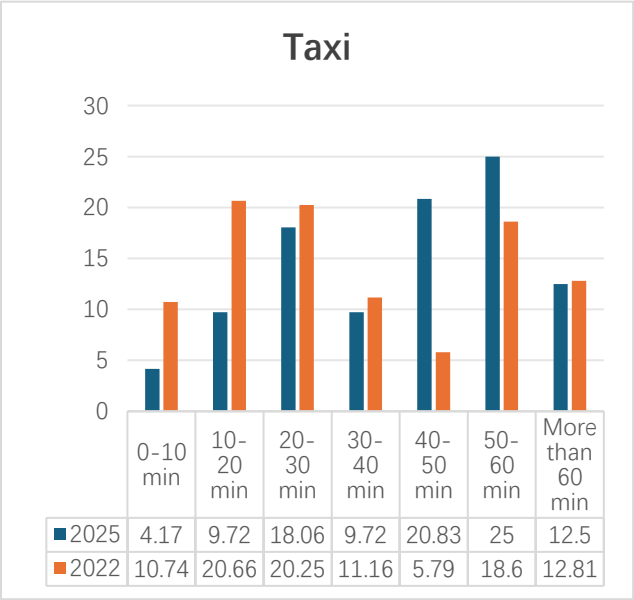


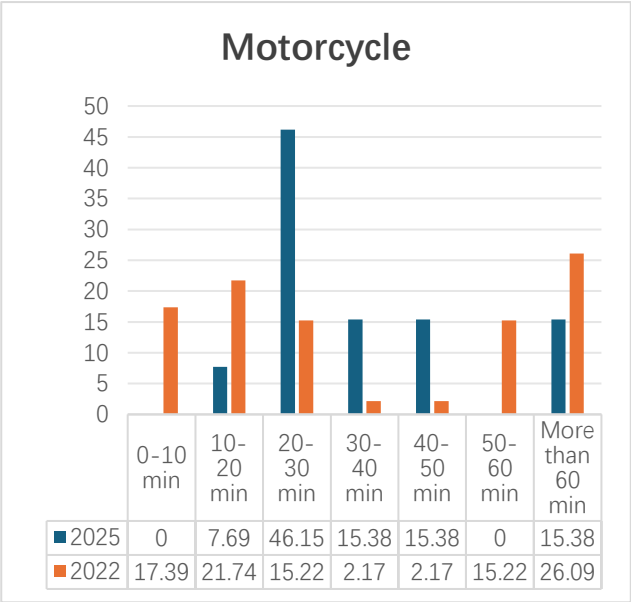
Figure 51 Proportion Composition of Travel Duration of Different Travel Modes in 2022①

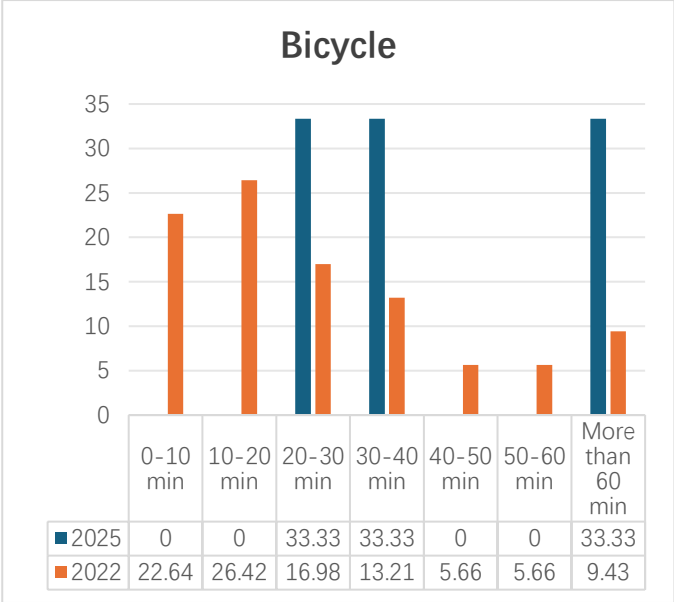

Private Car
30
25
20
15
10
5
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025 4.35 11 17.7 12.39 9.86 25.45 19.23
2022 10.44 15.2 19.1 9.85 5.11 14.98 25.33

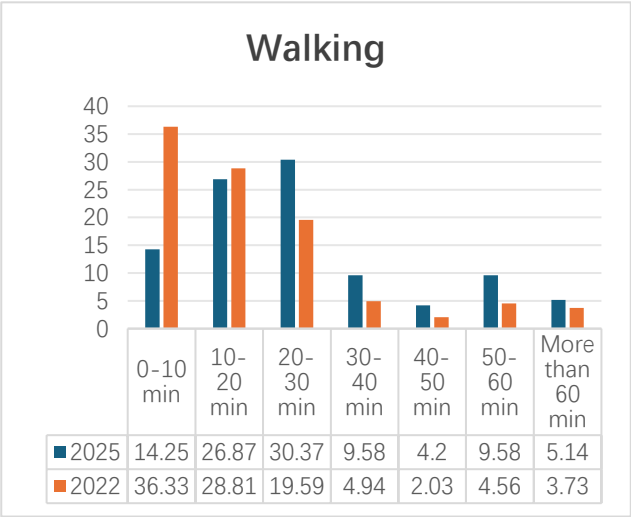

Public Bus
40
35
30
25
20
15
10
5
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025 2.12 11.71 18.82 17.32 8.16 22.99 18.88
2022 5.49 8.94 15.08 10.58 7.21 16.72 35.98


Bus
60
50
40
30
20
10
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025 2.13 19.15 25.53 25.53 6.38 14.89 6.38
2022 5.41 9.91 10.81 9.01 3.6 12.61 48.65


Taxi
30
25
20
15
10
5
0
0-10 min
10-20 min
20-30 min
30-40 min
40-50 min
50-60 min
More than 60 min
2025 4.17 9.72 18.06 9.72 20.83 25 12.5
2022 10.74 20.66 20.25 11.16 5.79 18.6 12.81







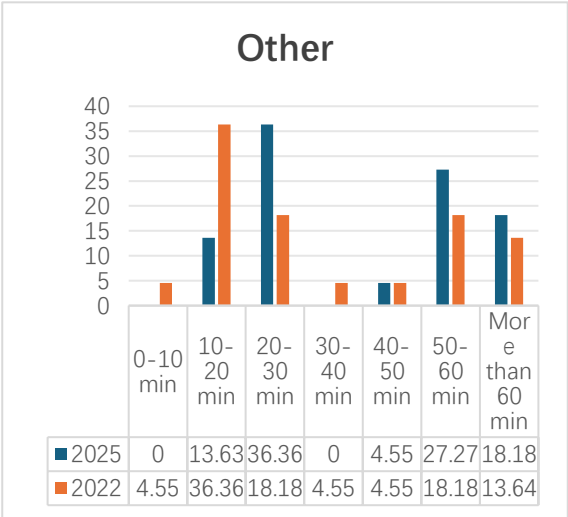


Figure 52 Proportion Composition of Travel Duration of Different Travel Modes in 2022 and 2025②

Key findings include:

(1) Reduced walking mode share: Walking accounted for 36.33% of travels in the 0-10 min range and 28.81% in the 10-20 min range during 2022, declining to 14.25% and 26.87% respectively by 2025.

(2) Growing private car and taxi shares: Private motorized transport (cars and taxis) comprised 4.35% of travels in the 0-10 min duration and 25.45% in the 50-60 min duration in 2025, marking an increase from 2022 levels.

(3) Shifts in public transport duration patterns: The public bus mode share for travels more than 60 min declined from 35.98% (2022) to 18.88% (2025), whereas the bus proportion in the 20-30 min duration rose from 10.81% to 25.53% during the same period.

(4) Fluctuations in motorcycle and bicycle shares: The proportion of motorcycle travels in the 20-30 min duration surged from 15.22% to 46.15%, and bicycle usage also rose in certain time durations.

(5) The aggregate trend reveals a mode shift toward motorized transportation among Ulaanbaatar residents, accompanied by declining walking rates and potential public transport efficiency gains. The underlying causes warrant comprehensive analysis incorporating urban development policies and transport infrastructure enhancements.

6. Conclusions

6.1 Surveyed Household Information

The study area encompassed 52 traffic analysis zones (TAZs) adjacent to the New Ring Road corridor, with systematic distribution of 50 questionnaires per TAZ yielding 2,600 valid responses.

6.2 Main Survey Results on Resident Travel

Ulaanbaatar City's projected total daily trips reach 3.2 million in 2025.

(1) Travel Purpose:

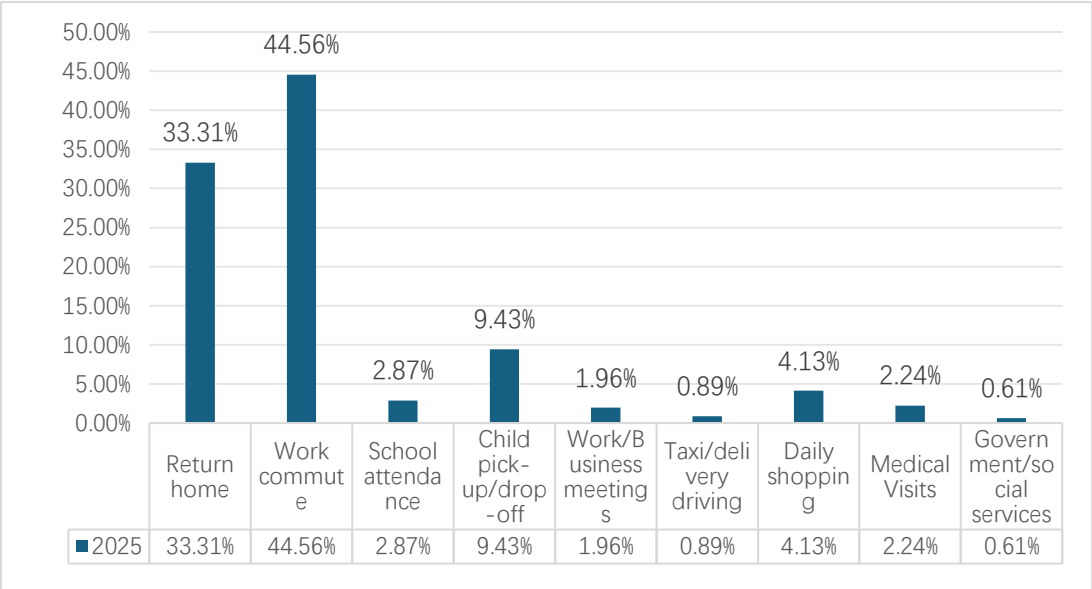


Figure 53 Distribution of Travel Purposes

① Resident travel is predominantly for "work" and "returning home," collectively accounting for nearly 80% of all trips, forming the core demand of daily mobility.

② Among other activities, "school escorting" constitutes a significantly higher proportion than "attending school." Lifestyle trips (e.g., "shopping," "medical visits") show moderate shares, while "business" and "professional driving" activities exhibit relatively low proportions.

Overall, residents near the "Grand Ring Road" demonstrate a work-home centered travel structure, with other activities maintaining relatively balanced distribution.

(2) Travel Mode:

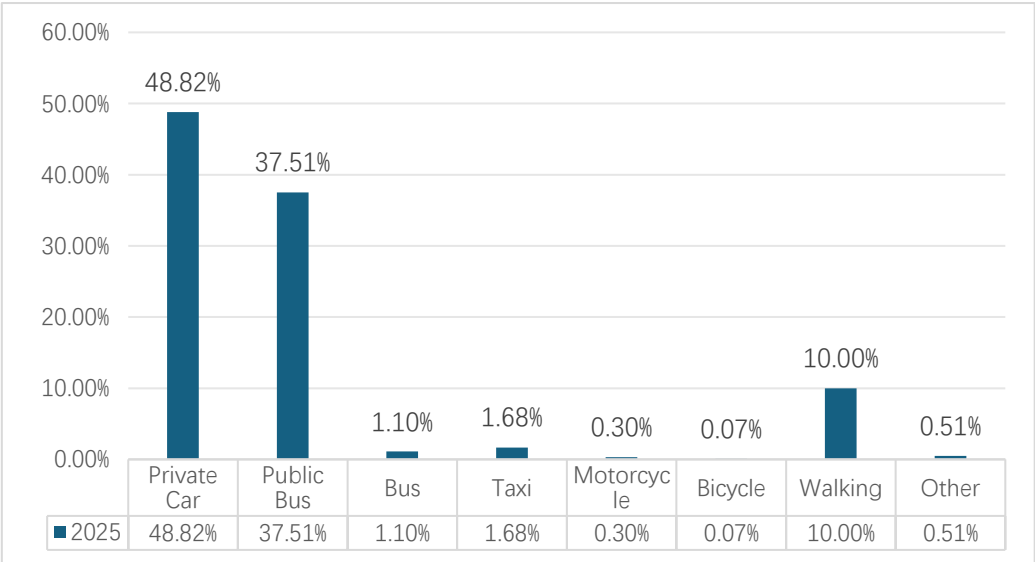


Figure 54 Overall Proportion Composition Diagram of Travel Modes

① Private cars account for 48.82% and buses for 37.51%, reflecting heavy reliance on motorized transport.

② Private cars show the highest mode share for school escorting and business meetings; buses are more commonly used for shopping and government affairs; walking holds relatively high proportions for attending school and government affairs.

③ The excessive private car share may exacerbate congestion and pollution, while green travel modes (cycling: 0.07%) require enhancement.

Overall, commuting constitutes the core demand, yet each transport mode demonstrates distinct strengths across specific travel scenarios.

(3) Travel Duration:

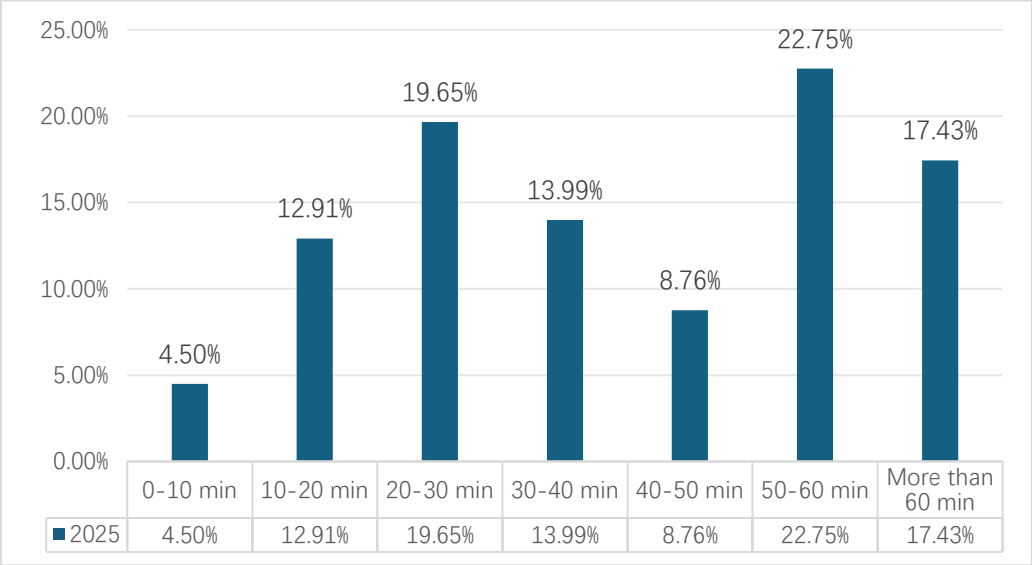


Figure 55: Overall Proportion Composition Diagram of Travel Duration

① Trip durations are predominantly concentrated in short-distance (10-30 minutes) and long-distance (50+ minutes) ranges, with extended travel times potentially attributable to extended commute distances or traffic congestion.

② For work, returning home, school commutes, and school escorting, durations cluster within 20-30 minutes; work/business meetings peak in the 10-20 minute range; while professional driving (taxis/delivery), shopping, and medical visits show the highest proportions exceeding 50 minutes.

③ Walking and buses dominate short trips (0-20 minutes); private cars, buses, and taxis exhibit significant shares for medium-to-long trips (50+ minutes).

Overall, motorized transportation dominates medium-to-long distance travel, while walking remains the primary choice for short-distance trips.

(4) Resident Travel Preference Survey:

An overwhelming 88.40% of surveyed residents endorsed the "Major Ring Road" project, indicating frequent usage intent when interchange access is within a 3-kilometer radius. Survey participants further proposed specific transportation planning recommendations: (1) expedite ring road implementation with enhanced safety measures (roadway illumination, speed bumps); (2) upgrade transit amenities (particularly in traditional ger communities) and optimized signal timing; (3) intersection consolidation complemented by expanded parking capacity and stormwater management systems.

(5) Community Perception on Transportation System Performance:

① Traffic Issues:

(i) Road Infrastructure: Insufficient parking is the most prominent problem, alongside road damage and indiscriminate vehicle parking.

(ii) Public Transport: Unpunctuality and unoptimized routes are primary grievances, compounded by high fares and poor station facilities.

(iii) Non-Motorized Travel: Scarce bicycle lanes constitute the main issue, supplemented by inadequate pedestrian crossing facilities.

② Traffic Congestion:

(i) Top Citizen Concerns: "Uneven road surfaces," "excessive vehicles," and "insufficient downtown parking."

(ii) Urban Planning Deficiencies: "Over-concentration of shopping malls in city center" and "inadequate north-south/southwest roads."

(iii) Pedestrian/Cyclist Facility Gaps: "Absence of bike lanes" and "pedestrians avoiding crosswalks."

Summary: Congestion primarily results from insufficient road infrastructure, directional road shortages (N-S/SW), and weak public transit.

③ Traffic Conditions:

(i) Overall Trend: Negative assessments dominate with low improvement rates.

(ii) Detailed Analysis:

Congestion: "Worsened" (highest %)

Pedestrian environment: "Slightly improved" (relatively higher %)

Traffic safety: "No improvement" (highest %)

Vehicle emissions: "Worsened" (high %) (iii) Critical Challenges: Traffic congestion, pollution, and parking shortages.

④ Congestion Mitigation Measures:

(i) High Support: Primary/secondary road construction, new roads, upgraded bus/taxi stops, increased parking.

(ii) Low Support: Higher vehicle taxes, increased bus fleet size.

(iii) Moderate Support: Bus system modernization, metro construction, smart traffic lights.

(iv) Uncertain Responses: Metro construction, increased bus numbers.

(6) Peak Hour Origin-Destination Matrices

(Morning / Noon / Evening matrices provided separately)

Table 16 Morning Peak Traffic Zone Trip Matrix in Ulaanbaatar(pcu/h)

Traffic Zones	1	3	4	5	6	7	8	21	22
1	2656	1667	1713	714	282	1748	267	824	553
3	3047	1585	725	1095	457	2100	375	1168	293
4	3256	1512	1339	548	325	1781	203	783	994
5	731	421	241	155	309	754	166	394	108
6	1423	982	608	381	837	1629	563	1265	190
7	2344	3239	1356	703	1281	4626	1075	2432	319
8	177	415	113	117	526	928	694	386	59
21	1301	1479	711	438	424	1558	413	2163	303
22	962	301	644	198	77	358	61	236	139

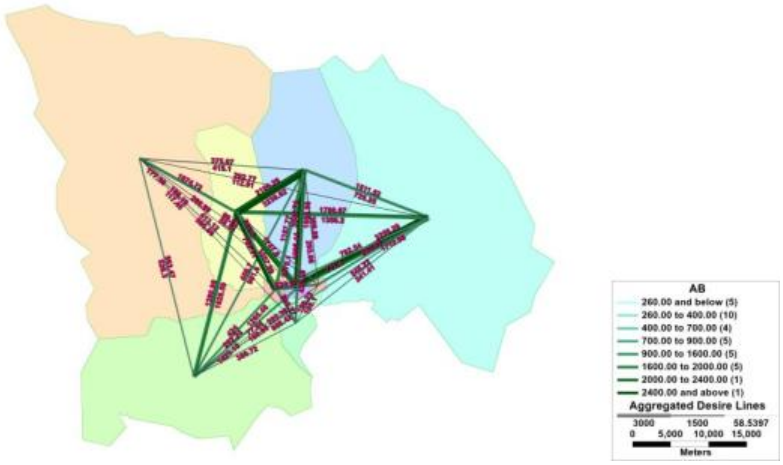


Figure 56 Projected Trend Line for Morning Peak in 2025

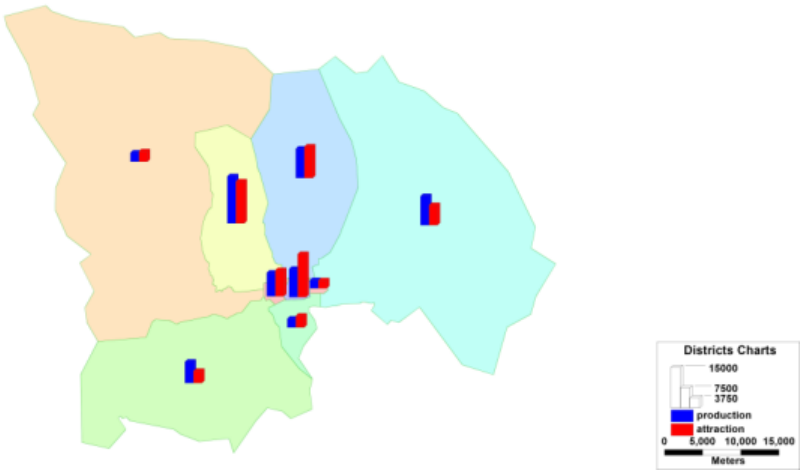


Figure 57 Bar Chart for Morning Peak in 2025

Table 17 Noon Peak Traffic Zone Trip Matrix in Ulaanbaatar(pcu/h)

Traffic Zones	1	3	4	5	6	7	8	21	22
1	4794	2073	1686	1216	500	2621	221	2201	813
3	2283	4041	632	784	583	1164	195	2286	303
4	1994	1146	964	259	309	584	90	687	1082
5	1984	820	88	176	159	1233	100	405	16
6	565	628	206	309	1844	895	383	551	51
7	1601	1845	712	1059	695	4342	981	1962	198
8	306	177	83	152	332	599	742	199	49
21	2286	3499	454	849	413	1393	228	4842	144
22	4794	2073	1686	1216	500	2621	221	2201	813

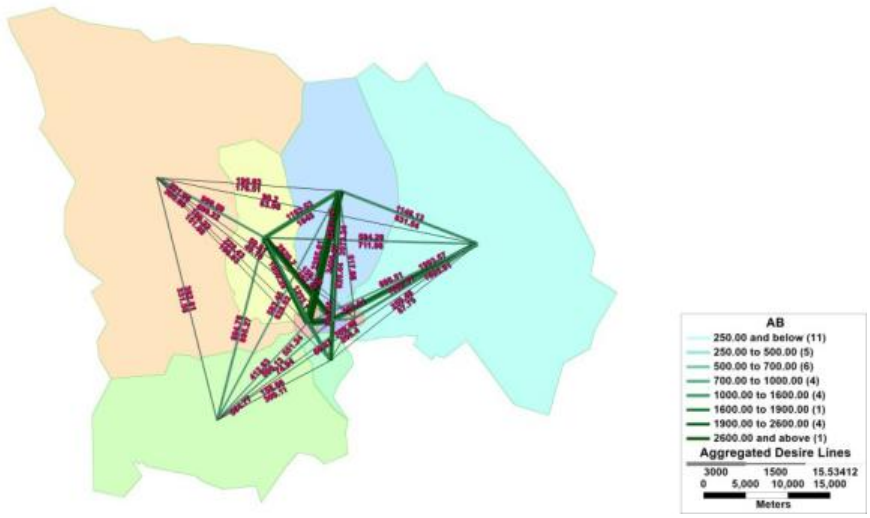


Figure 58 Projected Trend Line for Noon Peak in 2025

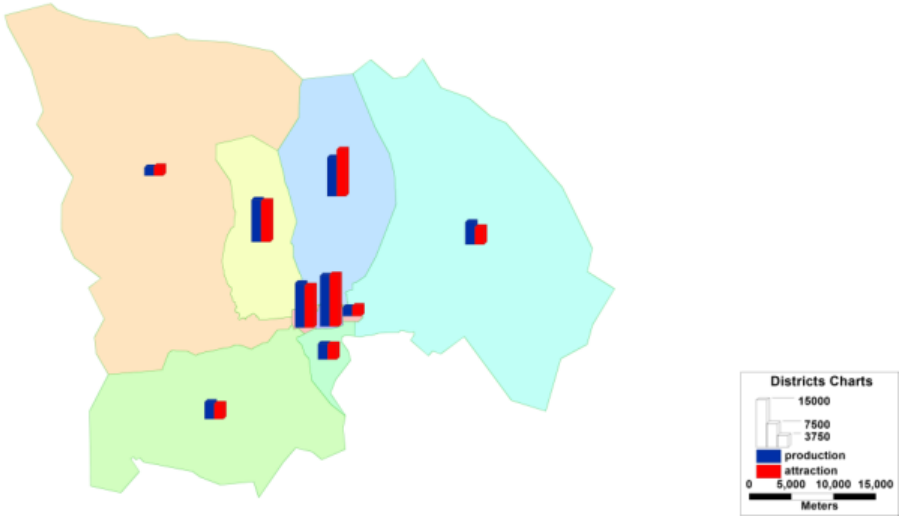


Figure 59 Bar Chart for Noon Peak in 2025

Table 18 Evening Peak Traffic Zone Trip Matrix in Ulaanbaatar(pcu/h)

Traffic Zones	1	3	4	5	6	7	8	21	22
1	4237	2914	1839	849	444	2266	149	1847	331
3	1955	1465	1609	868	431	2703	342	1034	518
4	1457	1847	1167	219	255	1479	114	952	742
5	812	588	137	156	317	683	153	488	54
6	1452	1128	433	379	837	1343	531	1055	104
7	2243	2457	1614	621	1323	4762	1049	1946	435
8	186	405	108	94	540	904	694	200	46
21	1594	1676	708	462	465	2457	560	2257	233

22	302	678	1728	73	51	297	30	160	320

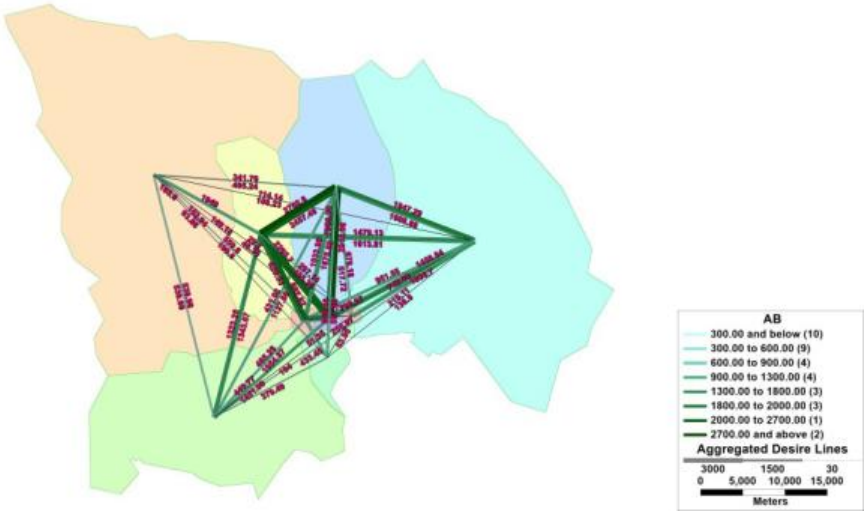


Figure 60 Projected Trend Line for Evening Peak in 2025

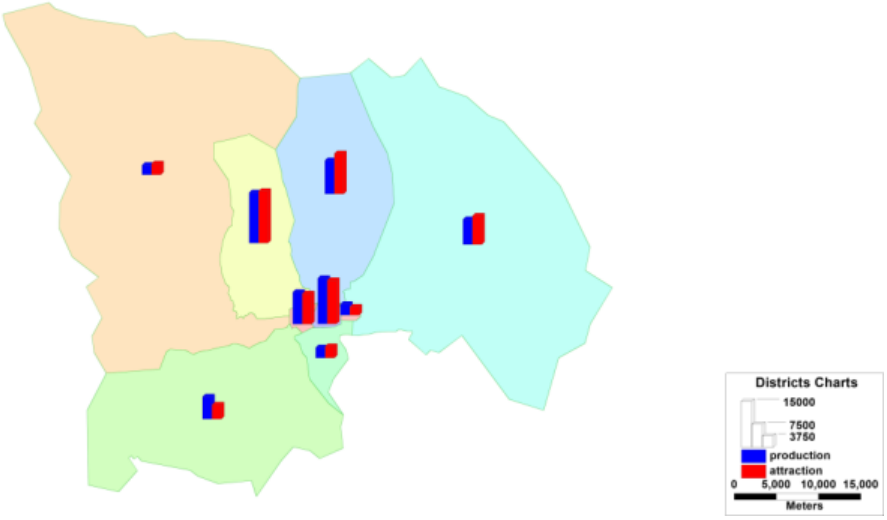


Figure 61 Bar Chart for Evening Peak in 2025

Appendix

Зорчилтын судалгааны санал асуулга

Загвар төсөл

Эрхэм хүндэт оршин суугч танд едрийн мэнд хүргэе. Иргэдийн авто замаар зорчих хэрэгцээ шаардлагыг тодорхойлох, зорчих эрэлт ихтэй хэсэгт, авто замын сүлжээний бүтцийг оновчтой төлевлөх зорилгоор иргэдийн зорчилт хөдөлгөөний судалгааг авч байна. Энэхүү судалгаа нь зөвхөн судалгааны зорилгоор ашиглагдах тул санал асуулгад идэвхтэй оролцоно гэж найдаж байна.

Асуулга эхлэх огноо: _____он____сар___едер

Оршин суугаа хаяг: _____хот _____ дүүрэг _____хороо ..... тоот

Ерөнхий мэдээлэл

1. Гэрийн хаяг	2. Өрхийн ам бүлийн тоо	3. Тухайн хаягт оршин суусан хугацаа		4. Амьдарч байгаа сууцны талбайн хэмжээ	5. Амьдарч байгаа сууцны эзэмшлийн төрөл	6. Өрхийн тээврийн хэрэгслийн тоо	7. Тээврийн хэрэгсэл худалдаж авах төлевлөгөө	8. Амьдарч байгаа газраас нийтийн тээврийн зогсоол хүртэлх зай	9. Хувийн автомашины зогсоол болон ашиглалтын давтамж				10. Хотын авто замын хөдөлгөөний сэтгэл ханамжийн түвшин
		6 сар болон түүнээс дээш сар оршин суусан иргэд	6 сараас доош оршин суусан иргэд						Авто зогсоол машины		Ашиглалтын давтамж		
									Амьдарч байгаа газар	Ажлын газар	Зогсоолыг ажлын хэдэн едерт хэрэглэдэг вэ?	Авто машиныг едерт хэдэн удаа ашигладаг вэ?	
	Том хүн ..... Хүүхэд	Том хүн ..... Хүүхэд	Том хүн ..... Хүүхэд	.....м2	1) Өөрийн байр 2) Түрээсийн байр 3) ажил олгогчийн өгсөн байр 4) Бусад	1) Суудлын тэрэгний тоо.... 2) Мотоциклийн тоо.... 3) Цахилгаан машины тоо.... 4) Унадаг дугуйн тоо.... 5) Бусад....	1) 1 жилийн дотор 2) 1-3 жил дотор 3) 3-с дээш жилийн хугацаанд 4) Төлевлөгөөгүй	1) 200м дотор 2) 200м~500м 3)500м-1000м 4) 1000м-с дээш зайтай	1) Байрны гадаа 2) Хашаанда а 3) Граж 4) Бусад	1) Зам дагуух зогсоол 2) Замын гадна нийтийн зогсоол 3) Зогсоолгүй газар 4) Бусад	1) 1 едер 2) 2 едер 3) 3 едер 4) 4 едер 5) 5 едер	1) 1 удаа 2) 2 удаа 3) 3-с дээш удаа	1) Маш өндөр 2) Ханамжтай 3) Дундаж 4) Ханамжгүй 5) Огт ханамжгүй

6. Тээврийн үйлчилгээд зарцуулах сарын зардал	Тэмдэглэх ✓	3. Сарын орлого	Тэмдэглэх ✓	3. Таны боломжоор	Тэмдэглэх ✓	2. Нас	Тэмдэглэх ✓	1. Хүйс
50 000₮ хүртэлх		1 000 000 хүртэлх		Бага		6 - 14		Эрэгтэй
50 001 - 100 000₮		1 000 001 - 2 000 000₮		Дунд				Эмэгтэй
100 000 - 150 000₮		2 000 001 - 3 000 000₮		Бүрэн дунд		15 - 19		4. Хөдөлмөр эрхлэлт
150 001 - 200 000₮		3 000 001-4 000 000₮		Тусгай мэргэжил		20 - 24		Төрийн алба хаагч
200 001 - 250 000₮		4 000 001-5 000 000₮		Бакалавр		25 - 29		Санхүү эдийн засаг, хүүгийн эрх зүйн салбарын ажилтан
250 000₮ дээш		5 000 001₮ дээш		Магистр		30 - 39		Боловсрол, шинжлэх ухааны салбарын ажилтан
				Доктор		40 - 49		Эм, эмнэлэг, эрүүл мэндийн ажилтан
						50 - 59		Оюутан
						59-с дээш		Ажилтан
								Сайн дурын ажилтан
								Хувиараа хөдөлмөр эрхлэгч
								Үйлчлүүлэгч ажилтан
								Жолоочин
								Цэрэг
								Гэрээ байдаг
								Тэтгэвэрт
								Бусад
								5. Өдөр тутмын тээврийн хэрэгсэл ашиглалаг байдал
								Алхалт
								Унаат дугуй
								Нийтэд тээвэрлэх
								Тусгасны дугуй
								Цахилгаан машин
								Автобус
								Машин тэрэгс
								Дугуйлагч такси
								Мотоцикл
								Нисэгч тээвэр
								Хүүхэд машин
								Бусад

7. Нийтийн тээврийн суудлаа (өдөрт)	8. Оршин суугчдын дундаж зорчилтын тоо (өдөрт)								9. Оршин суугчдын дундаж зорчилтын хугацаа (өдөрт)						
	0	1	2	3	4	5	6	7	8	5–10мин	10–20мин	20–30мин	30–40мин	40–50мин	50–60мин	60-с дээш мин
										1	2	3	4	5	6	7
Гэрээс автобусны буудал хүрэхэд зарцуулах хугацаа										( ) мин	( ) мин	( ) мин	( ) мин	( ) мин	( ) мин	( ) удаа
Автобус хүлээх хугацаа																
Автобусанд зорчоог хугацаа																
Буудлаас зорьсон газарт хүрэхэд зарцуулах хугацаа																
Дамжин суудаг too (0, 1 эсвэл 2)																

1.Улаанбаатар хотын замын хөдөлгөөний өнөөгийн асуудлын шалтгааныг юу гэж бодож байгаагаа сонгоно уу. (Олон сонголттой)

Автомашин хэрэглэгч	Тэмдэглэх ✓	Нийтийн тээврээр зорчигч	Тэмдэглэх ✓	Явган алхагч болон дугуй	Тэмдэглэх ✓
Авто замын сүлжээ хангалттүй		Маршрут оновчгүй		Явган хүний зам, дугуйн зам дутмаг	
Авто зам эвдрэлтэй		Цагтаа ирдэггүй		Явган хүний зам/Дугуйн замын хучилт муу	
Авто Машины зогсоол хангалттүй		Нийтийн тээврийн үйлчилгээний хөлс өндөр		Явган хүний гарцын ногоон гэрлэн дохио хурдан унтардаг	
Замын Тэмдэг, тэмдэглэгээ муу		Олон удаа дамжин суудаг		Явган хүний гарц дээр хүлээх талбай дутмаг	
Авто Замын сүлжээний уулзварын зохион байгуулалт зөв бус		Нийтийн тээврийн хурд (Хүрэх газартаа цагтаа очдоггүй)		Хороолол дотор явахад явган хүний замыг хаасан хашаа хайс ихтэй тул зорчих боломжгүй	
Зөвшөөрөлгүй газар авто машинаа зогсоох		Нийтийн тээврийн зогсоолын байршил болон тохижилт тааруу			
		Дүүрэн хүн ихтэй автобус			
		Жолоочийн харилцаа хандлага тааруу			

2. Та нийтийн тээврийн үйлчилгээг хэрхэн үнэлэх вэ?	Тэмдэглэх ✓	**3. Та замын түгжрэлийн шалтгааныг юу гэж бодож байна вэ? (Олон сонголттой)**	Тэмдэглэх ✓
Их ханамжтай		Машины тоо хэт их болсон	
		Том зах худалдааны төвүүд нь төвдөө байрлалтай	
Дунд зэрэг		Хойноос урагш, урдаас хойш чиглэлд босоо тэнхлэгийн дагуу зам бага	
		Хотхоноос гарч орох	
Ханамжтай		Зам муу эвдрэл гэмтэл ихтэй	
		Нийтийн тээврийн хүртээмж муу	
Огт ханамжгүй		Дугуйн зам байхгүй болохоор	
		Явган зорчигч гарцаар гардаггүй байдал	
		Хотын төвд зогсоол хүрэлцээгүй	

	Нэгдэх зорчилт	Хоёрдох зорчилт	Гуравдах зорчилт
Эхлэх цэг	1) Гэр	1) Гэр	1) Гэр
	2) Ажил	2) Ажил	2) Ажил
	3) Цэцэрлэг	3) Цэцэрлэг	3) Цэцэрлэг
	4) 10 жилийн сургууль	4) 10 жилийн сургууль	4) 10 жилийн сургууль
	5) Их, дээд сургууль	5) Их, дээд сургууль	5) Их, дээд сургууль
	6) Төрийн байгууллага	6) Төрийн байгууллага	6) Төрийн байгууллага
	7) Эмнэлэг	7) Эмнэлэг	7) Эмнэлэг
	8) Томоохон зах, худалдааны төв	8) Томоохон зах, худалдааны төв	8) Томоохон зах, худалдааны төв
	9) Бусад	9) Бусад	9) Бусад
	Хаяг	Хаяг	Хаяг
Зорчилтын зорилго	1) Гэртээ харих	1) Гэртээ харих	1) Гэртээ харих
	2) Ажилдаа явах	2) Ажилдаа явах	2) Ажилдаа явах
	3) Сургуульдаа явах	3) Сургуульдаа явах	3) Сургуульдаа явах
	4) Сургууль, цэцэрлэгээс хүүхдээ авах, хүргэх	4) Сургууль, цэцэрлэгээс хүүхдээ авах, хүргэх	4) Сургууль, цэцэрлэгээс хүүхдээ авах, хүргэх
	5) Ажил/ Бизнес уулзалт хийх	5) Ажил/ Бизнес уулзалт хийх	5) Ажил/ Бизнес уулзалт хийх
	6) Таксинд явах, хүргэлт хийж орлого олох	6) Таксинд явах, хүргэлт хийж орлого олох	6) Таксинд явах, хүргэлт хийж орлого олох
	7) Томоохон зах, худалдааны төв орох	7) Томоохон зах, худалдааны төв орох	7) Томоохон зах, худалдааны төв орох
	8) Эмнэлгийн үйлчилгээ авах	8) Эмнэлгийн үйлчилгээ авах	8) Эмнэлгийн үйлчилгээ авах
	9) Төр, нийгмийн үйлчилгээ авах	9) Төр, нийгмийн үйлчилгээ авах	9) Төр, нийгмийн үйлчилгээ авах

Маршрут		Тээврийн хэрэгсэл*	Очих газар (Destination)/ Дамжин суух (Transfer)	Хугацаа (минут)		Тээврийн хэрэгсэл*	Очих газар (Destination)/ Дамжин суух (Transfer)	Хугацаа (минут)		Тээврийн хэрэгсэл*	Очих газар (Destination)/ Дамжин суух (Transfer)	Хугацаа (минут)
	1		◻D ◻T		1		◻D ◻T		1		◻D ◻T	
	2		◻D ◻T		2		◻D ◻T		2		◻D ◻T	
	3		◻D ◻T		3		◻D ◻T		3		◻D ◻T	
	4		◻D ◻T		4		◻D ◻T		4		◻D ◻T	
	5		◻D ◻T		5		◻D ◻T		5		◻D ◻T	
Тээврийн хэрэгсэл	① Суудлын автомашин ② Автобус ③ Урт, цуваа автобус ④ Такси ⑤ Скүүтер(Мотоцикл) ⑥ Унадаг дугуй ⑦ Явган алхах ⑧ Бусад( )											

4. Та замын хөдөлгөөний нөхцөл байдлыг өнгөрсөн оны нөхцөл байдалтай харьцуулахад ямар болсон гэж үзэж байна вэ?	Сайжирсан	Хэвэндээ	Дордсон	Хэлж мэдэхгүй
Автомашины зогсоолын хүртээмж				
Авто замын түгжрэл				
Тээврийн хэрэгслээс ялгарч буй бохирдол				
Явган зорчигч алхах орчны таатай байдал				
Авто замын бүрэн бүтэн байдал				
Замын хөдөлгөөний аюулгүй байдал				

5. Та замын түгжрэлийг бууруулах хүрээнд авч хэрэгжүүлэх дараах арга хэмжээг дэмжиж байна уу?	Маш их	Дэмжиж байна	Бага зэрэг	Дэмжихгүй	Мэдэхгүй
Нийслэлд гол, туслах зам барих өргөтгөх					
Авто зам шинээр барих					
Нийтийн тээврийн паркт шинэчлэлт хийх					
Метро барих					
Дүүжин тээвэр барих					
Тээврийн хэрэгслийн татварыг нэмэгдүүлэх					
Ухаалаг гэрлэн дохио суурилуулах					
Машины зогсоолыг нэмэгдүүлэх					
Автобусны болон таксины зогсоолуудыг сайжруулах (зорчигч суулгах, буулгах байршил болон байгууламж)					

Санал , зөвлөмж

1) **Таны амьдарч байгаа бүсэд хотын баруун бүсийг зүүн бүстэй холбосон 4-6 эгнээ "Шинэ тойрог" авто замыг байгуулбал та дэмжиж байна уу?**

А. Маш их Б.Тийм В. Дунд зэрэг В. Үгүй Г. Огт үгүй

2) **Таны амьдарч буй газраас "Шинэ тойрог" авто замын орц, гарц хамгийн ихдээ 3км зайд байрлах бол та энэ замаар зорчихыг хүсэх үү?**

А. Байнга Б. Ихэнхдээ Б. Хааяа В. Үгүй Г. Огт үгүй

3) **"Шинэ тойрог" замтай холбоотой таны зүгээс өгөх санал, зөвлөмж байвал бичнэ үү?**

.....
.....
.....
.....
.....
.....

Судалгааны ажилтан:.....
Утас:.....
Хүлээн авагч:.....

Судалгааны асуумжтай танилцсан

Төслийн удирдлагын албаны дарга Б.Мөнхбаатар

Авто Зам, Замын Байгууламжийн Захирал А.Ербол

Судалгаа шинжилгээ, хөгжүүлэлтийн албаны дарга Х.Өнөржаргал

Судалгааны асуулга боловсруулсан

Архитектор Л.Уянга