RECOGNISING, UNDERSTANDING AND ADDRESSING THE ENVIRONMENTAL, NETWORK AND SOCIAL IMPACTS OF THE STUDENT COMMUTE TO UNIVERSITY IN THE UK

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1. INTRODUCTION

There are 2.8 million students in higher education (HE) at universities in the UK. Almost half of these – 47% (Kenyon, 2025) – are *commuter students*: 'students who continue to live at home while studying, rather than moving into student accommodation' (Kenyon, 2024a: 116).

Unlike residential students, commuter students continue to live at home, travelling to university for their lessons, or to access services, social networks and support.

This gives a substantial transport footprint.

The average student is timetabled to attend classes on three days a week, during term time. This equates to 1.3 million students commuting to attend taught sessions at university, three times a week, every week, equating to 3.9 million return journeys.

However, university students are largely invisible in transport planning. Local Transport Plans and development planning routinely exclude students from surveys, personas, strategies and models. The National Travel Survey (DfT, 2025) and the Census (ONS, Nd), which provide much of the data that we rely on to inform transport planning, present education data in aggregate, failing to disaggregate between primary, secondary and tertiary, so it is not possible for us to understand travel to university, or being a university student as an occupation.

This reflects a fundamental misunderstanding of the nature of participation in HE today, across society, government and the transport planning industry.

There are three key impacts of this for transport planners, policy makers and practitioners.

- The first is the *network impact* of this transport footprint, which we need to understand, account for and mitigate, considering service use and service provision.
- The second is the *environmental impact*, which we need to understand, account for and mitigate, if we are to achieve a net zero transport economy.
- The third is the *exclusionary impact* of a transport system in which a substantial number of users are invisible and, therefore, likely to be underserved, which we need to understand, account for and mitigate, if we are to achieve an inclusive transport system.

As such, this paper aims to raise awareness of commuter students, amongst the transport planning community, in order that the negative network, environmental and social impacts of these invisible commuters can be mitigated.

The paper proceeds through the following sections. First, we highlight the number, nature and needs of commuter students. Next, we highlight the environmental, social and network impacts.

The paper concludes that commuter students have a substantial effect on the transport network. They are central to efforts to reduce the climate impact of the transport system. They experience transport-related social exclusion, as they attempt to navigate a transport system that does not recognise their needs.

The invisibility of commuter students in transport planning, policy and practice is a problem that will continue to grow, as more commuter students enter higher education. It is, therefore, essential that commuters are included in surveys, personas, strategies and models, in order that the negative network, environmental and social impacts of these invisible commuters can be mitigated.

2. COMMUTER STUDENTS

In the UK, there is a long-standing cultural norm that shapes our view of the characteristics and behaviour of the 'typical student'.

We see students as *residential students*, who move away from home to attend university. We expect students to live on or very near to the site of learning, in order that they can be immersed in and become part of the academic community. As William Whyte describes, this is the almost uniquely British vision of the university as place and as a distinct, bounded society, in which knowledge and truth are created: 'a collection of people and buildings, where staff and students, visitors and interlopers, live and work as well as think' (2015: 16). The 'typical student' has a hedonistic lifestyle, behaving freely and interacting only with other students, in their privileged, bounded community.

From a transport planning perspective, the 'typical student' does not trouble the network. Except for the journey to and from campus at the start and end of term, the typical student remains, largely, in their defined area. All their activities – education, employment, healthcare, leisure, shopping, socialising – are provided and conducted within this bounded geographical area, accessible on foot, or by bicycle.

This leads transport planners, practitioners and policy makers to conclude that there is no need to consider student travel in our models, plans or policies. And they are not alone: HE providers, too, continue to operate for the 'typical student'. How we teach, our policies and processes, including assessments, co- and extra-curricular activities, learning and teaching activities, learning and teaching facilities, skills and wellbeing support and social activities, continue to be premised on the residential model of HE. They are designed for the 'typical' residential student, provided at a time and in a place that assumes (1) that students live on

or near campus and (2) that students' lives are entirely focused on the university society and within the university space.

The problem is that the assumption that students move away from home to attend university, living, working and socialising within a defined and bounded geographical area, no longer holds true.

Widening participation (WP) strategies, which aim to remove barriers to HE, have succeeded in increasing participation in HE. More than half of young adults now attend university, compared to around 15% 30 years ago (Bolton, 2025). Participation has widened to historically under-represented groups, who are 'non-traditional' to HE, considering ethnicity, income, location, qualifications and school type (DfE, 2023).

As Kenyon (2024a) summarises, as participation has widened and increased, more students are continuing to live at home whilst studying, rather than moving to attend university. In part, this reflects the fact that many of the characteristics that are associated with being a non-traditional student also make students unable or unwilling to relocate, including employment, family commitments, social networks, caring responsibilities, home ownership and/or reluctance to leave the local community. For many, relocation is unaffordable, particularly as the costs of HE have increased, considering tuition fees and the (non)availability of student loans, which are relative to parental income and have not increased in line with inflation.

The rapid increase in student numbers has also led to an undersupply of student accommodation. This has increased prices, further encouraging students to remain at home.

It has led to a rapid increase in purpose-built student accommodation, which is situated outside of the campus and/or away from the main university sites. This decreases the attractiveness of relocating, again leading to an increase in commuter students. It has also further increased the number of students who must commute to university, despite relocating – a category of students who we can term 'residential commuters'.

As a result of these trends, as mentioned above, 47 per cent of students in UK higher education today are commuter students (Kenyon, 2025). They generate millions of journeys on our networks each week. But they are largely invisible in transport planning, policy and practice.

Because we do not see commuter students, we do not plan for their impacts on the network, in our models or in practice. We cannot mitigate their impacts on the environment, which reduces our ability to move the transport sector towards net zero. We cannot provide for their mobility needs, which results in transport-related social exclusion.

This paper now considers each of these in turn, highlighting the consequences of invisibility, before suggesting practical actions that we can take, to include commuter students in our planning, policy and practice.

3. COMMUTER STUDENTS: NETWORK IMPACTS

There is very little research into the travel patterns and network impact of commuter students. With the exception of research by the author (Kenyon, 2024b), research into the impact of the student commute to learning to date has focused on the educational, rather than the transport, impacts.

This reflects commuters' historic invisibility. Universities, government, regulatory bodies, and researchers cannot count, seek to understand, or address what they do not see.

To understand the network impacts of commuter students, the first step is to make them visible in surveys. We need to collect quality, comparable data, with a sufficient sample size to reflect the diverse and complex activity patterns of commuter students. We need add the university student commute as a distinct category in travel surveys and to disaggregate 'education' into primary, secondary and tertiary, as both an activity and an occupation.

In the interim, we can work with universities to understand their student population, using secondary data. The definition of commuter student used here has been developed in part because it requires only two pieces of information: home postcode; and term time postcode. All universities collect these data and these data are submitted to the government as part of universities' mandatory HESA return (HESA, nd). Transport planners, policy makers and practitioners can access HESA data, to understand the proportion commuter students at a given university and in a given area.

At Canterbury Christ Church University, as part of our response to the climate emergency (CCCU, 2023), we used these data to understand how many of our students are commuters and where they live. We used accessibility planning software (Basemap, nd) to understand the real-time accessibility of the university campuses, by different modes, at different times of day. We used timetabling and attendance data to understand average student activity patterns. In the absence of a valid, reliable travel survey, we conducted a simple mode use survey, in collaboration with the Students' Union, Student Green Office and academic members of staff, as part of the university's inclusion in a national sustainability campaign, organised by Students Organising for Sustainability (SOS UK, 2025).

We discovered, in summary:

- 66% of our students are commuters.
- Considering mode use, commuter students drive; residential students walk.
- The campus is accessible to approximately 1/3 of our students, in a reasonable travel time (<1 hour), at 9am, by public transport; to 2/3 by car.
- Over time, our students are moving further away from the university, into areas with less public transport and poorer road network links.
- Travel time accessibility is not correlated with distance: local students, in more rural areas, have lower transport accessibility than students living further way, in urban areas with fast, direct road and rail links to the city centre.
- Our estimated carbon footprint from the student commute is 6,800 tCO2e, representing 15% of our overall carbon footprint.

These findings, in combination with qualitative research, are invaluable in helping us to understand our network impact, our accessibility 'cold spots' and the possibility of modal shift for our students.

The network impact of universities will vary. Kenyon (2025) finds that the proportion of commuter students at each university is highly variable, with a range amongst universities of 12%-85%. There is a correlation between the likelihood of being a commuter student and the type of university. The following universities are more likely to have more commuters: non-Russell Group; post-92; lower tariff; lower league table; city-based (non-campus); vocational courses.

In the absence of quantitative data, this finding can be taken into account, when we seek to understand the likely impact of universities on the transport network.

4. COMMUTER STUDENTS: ENVIRONMENTAL IMPACTS

Few studies consider the environmental impact of commuter students (Kenyon, 2024b).

The most recent national data for the environmental impact of HE in England suggests that the student commute to learning accounts for 11% of total HEI emissions, an estimated 367,000 tCO2e in 2005 (HEFCE 2010: 10).

These findings are now 20 years old. We can be certain that the volume of emissions due to student commuting is now far higher, because the proportion of commuter students has more than doubled since 2005 and the number of students in UK HE has increased since 2005, from 2.3m to 2.8m (Kenyon, 2024b).

We can, therefore, be certain that progress towards a net zero transport economy, towards 'taking the filth out of the air and creating cleaner, quieter, healthier places' (DfT, 2021: 8), cannot be made without considering the student commute.

Reporting the student commute to learning is not part of universities' mandatory environmental data returns in the UK. Because reporting is not mandatory, data are not collected. Therefore, the environmental impact of the student commute is, like commuter students themselves, invisible.

We know that the student commute is having an environmental impact, but we cannot easily quantify it. As such, it may be difficult to persuade decision makers to act. However, partnership working with universities, to understand the population, their travel, available alternatives and possible alterations to university operations (timetabling, online learning) could support transport planners, practitioners and policy makers to reduce the environmental impact.

As mentioned above, at CCCU, by using registration data and a simple mode use survey, we were able to use TRACC to estimate our carbon footprint from the student commute. We explored available transport options and we know that it will be very difficult for our

students to remode or reroute, because of the absence of acceptable, accessible, affordable or available transport. Our qualitative work with students, a series of focus groups, has also revealed that the complexity of their activity patterns reduces their transport options.

Universities have a responsibility to understand how changing the timing and place of activities/resources could enable students to reduce or retime their travel on the existing network. We have a responsibility to work with universities, to understand commuter student demand, model their activity-travel patterns and explore the opportunities for digital connectivity to be part of our transport solutions, as Lyons et al explore in the context of Triple Access Planning (Lyons et al., 2024), to enable us to increase the environmental effectiveness of the transport network.

5. COMMUTER STUDENTS: SOCIAL IMPACTS

The links between transport and social exclusion are well known. Put simply, if you cannot travel to activities, you cannot participate in them. These activities are important, including employment, healthcare, leisure, shopping, socialising – and education (Kenyon, 2011).

Multiple studies have revealed that commuter students experience acute mobility-related educational exclusion (summarised in Kenyon, 2024a). Commuter students are unable to fully participate, engage and achieve, because they have to travel. They find it harder to engage with resources and support, learning activities, co- and extra-curricular activities, social activities and their learning community.

Consequently, they have poorer learning outcomes than residential students. They do significantly less well in their studies, are less likely to achieve a 'good' degree, are more likely to fail or drop out of their studies and are less likely to gain graduate employment after graduation. They have a poorer student experience than their residential counterparts. They feel less of a sense of belonging and connection. This has impacts beyond their wellbeing during their student life, affecting future wellbeing by reducing their ability to function well in society, post-graduation (Kenyon, 2024a).

Of course, universities have a role to play in addressing the inaccessibility of their services. Commuter students are studying within a university structure that is not suitable for those who need to travel and/or have commitments outside of the university society/space, for whom studying is a part of life, rather than a fully immersive cultural, educational and social experience.

But the transport industry also has a role to play in supporting the wellbeing of commuter students. Better transport – the provision of acceptable, accessible, affordable, available transport to learning, support and other facilities, at the time and place that they are provided – is integral to enhancing the participation of commuter students. We recognise this for those who experience transport-related social exclusion from other activities and opportunities, including employment, healthcare, healthy food shops, leisure and social networks (Kenyon et al., 2002) – we need to also recognise this for students who commute to university.

The first step in ensuring an inclusive transport system is to see commuter students, to recognise their existence, factoring their activities and trips into our surveys, models, personas and planning decisions. Commuter students are a diverse group, but they tend to share many of the same characteristics as those who we recognise as experiencing transport-related social exclusion. Improving our systems for commuter students is also, therefore, likely to lead to a more inclusive transport system that benefits the wellbeing of wider society, too.

6. CONCLUDING REMARKS

This paper has sought to raise awareness of commuter students, amongst the transport planning community, with the aim of influencing transport planning, policy and practice.

Commuter students have a substantial effect on our network, contributing an estimated 3.9 million journeys a week, the majority by private car. They are central to our efforts to reduce the climate impact of the transport system. They experience transport-related social exclusion, as they attempt to navigate a transport system that does not recognise their needs.

The invisibility of commuter students in transport planning, policy and practice is a problem that will continue to grow. We can be certain that the number of commuter students will continue to increase, both as a proportion of the student body, in line with cost-of-living pressures and post-Covid trends towards online living, and as student numbers continue to increase, in line with demographic trends and government policies to continue widening participation initiatives and the massification of HE.

It is essential that commuters are included in surveys, personas, strategies and models, in order that the negative network, environmental and social impacts of these invisible commuters can understood, accounted for and mitigated.

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