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ECONOMIC IMPACT OF INTERNATIONAL STUDENT MOBILITY:

Methodological approaches and key insights

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ACA	Academic Cooperation Association
AMEUP	Agency for Mobility and EU Programmes (Croatia)
CRUI	Conferenza dei Rettori delle Università Italiane
E+ / Erasmus+	European Union Programme for Education, Training, Youth and Sport
EUROSTUDENT	European Survey of Student Living Conditions
FTE	Full-Time Equivalent
GVA	Gross Value Added
HE	Higher education
HEI	Higher education institution
I-O Model	Input–Output Model
KA1 / KA2 / KA131 / KA171	Key Actions under Erasmus+
NA	National Agency for Erasmus+
SEPIE	Servicio Español para la Internacionalización de la Educación (Spain)
TPF	Tempus Public Foundation (Hungary)

Background

Student mobility—whether for a full degree or a shorter study period abroad—brings a **wide range of benefits to individual learners, higher education institutions, and systems**. Despite persistent statistical and methodological challenges in identifying and measuring its comprehensive impact, a growing body of research demonstrates that study abroad can significantly shape students' personal development, cultural adaptability, and career trajectories (e.g. Roy et al. 2018). These effects are particularly pronounced for students from less privileged backgrounds, with evidence suggesting that mobility experiences enhance their labour market outcomes (Di Pietro 2015; Sorrenti 2017; Waibel et al. 2018). Study abroad equips learners with key transversal skills such as adaptability, intercultural competence, global awareness, and language proficiency that are increasingly valued in globalised labour markets and often pre-define international career paths (Crossman & Clarke 2010; Cleak et al. 2016; Di Pietro 2012; Di Pietro 2023; European Commission 2019; Iriondo 2019; Parey and Waldinger 2011; Teichler 2017; Van Mol et el. 2021).

While institutional-level effects of study abroad are less frequently documented, several studies suggest that mobility contributes to academic excellence and enhances the quality of learning and teaching by fostering diverse, internationally enriched classroom environments and encouraging pedagogical innovation (e.g. Wächter & Maiworm, 2008; De Wit et al., 2015; Kayashima et al., 2024). Participation in education abroad may also improve institutional outcome indicators such as student retention and degree completion, and bolster institutional reputation in international rankings and employer surveys (Haupt & Castiello-Gutiérrez, 2021).

In addition to its individual and institutional benefits, **student mobility is also linked to financial and economic gains at country level**. Research—particularly from Anglo-Saxon contexts—highlighted the economic contributions international students make through **tuition fees** and **living expenditures** on housing, food, local services, and leisure activities. These direct effects are often complemented by the spending of visiting friends and family and by **broader knock-on effects** (indirect and induced) throughout the wider economy (e.g. Mendoza-Jiménez, 2025; Global Affairs Canada, 2022; London Economics, 2023; Open Doors, 2023). In more market-driven systems, such evaluations often serve to demonstrate the income international students generate, as they increasingly represent a vital source of institutional funding. Beyond these immediate returns, student mobility also contributes to the knowledge economy through participation in research, innovation, and engaged scholarship that supports the production of knowledge and technological development in a longer term (e.g. Levent, 2016).

In continental Europe, there is growing interest in collecting evidence and assessing the socio-economic impact of international students, particularly those pursuing full degree programmes. This interest spans both tuition-free and fee-based systems and often emerges in response to public debates that link international student mobility to broader concerns such as immigration, labour market integration, or demographic change. Efforts to evaluate this impact range from one-off studies—such as those conducted in Belgium/Flanders (De Witte et al., 2023)—to more systematic and recurring assessments in countries like Germany, Estonia, Finland, France, Italy, and the Netherlands (e.g. Geis-Thöne & Plünnecke, 2025; Statistics Estonia, 2023; Elfferich, 2022; Nuffic, 2023; Campus France, 2022; Uni-Italia, 2023). This emerging body of work reflects a shared recognition of the need for robust, evidence-based narratives to articulate the economic value of international student mobility.

While the economic effects of international degree mobility have received increasing attention in recent years, the impact of credit mobility remains comparatively underexplored. Only a limited number of national-level studies—in countries such as Austria, Spain, and Slovenia—have examined its financial implications (. Yet with the ambitious new targets set under the *Europe on the Move* initiative (which aims for at least 23% of university graduates to have participated in learning mobility abroad by 2030), and with the ever-growing participation in Erasmus+ (which has already supported over 15 million mobile learners), the economic relevance of credit mobility is gaining prominence. These trends underscore the importance of more structured, comparative efforts to better understand its financial and economic dimensions across Europe.

To support further enquiry in this area, the Academic Cooperation Association (ACA) collaborated with several ACA members acting as national agencies for Erasmus+: the Agency for Mobility and EU Programmes (AMEUP, Croatia), the German Academic Exchange Service (DAAD), the Tempus Public Foundation (TPF, Hungary), Tempus Fondacija (Serbia), and the Portuguese National Agency for Erasmus+. Together, they conducted a **structured review of existing methodological approaches** used to assess the financial and economic impacts of international student mobility, covering both full degree programmes and short-term mobility under Erasmus+.

This document presents the findings of that review, summarising commonly used methodologies, identifying current limitations in evaluation practices, and opening a discussion on potential frameworks to strengthen future evidence-based policymaking.

1. Mapping the field

1.1. Different groups of international students

Evaluating the economic effects of international student mobility requires a clear differentiation between **various student subgroups**. From a comparative perspective, students' country of origin, socio-economic background, mobility trajectory (including purpose, duration, and structure), individual behaviours, and underlying motivations can significantly shape the nature and scale of possible economic impacts (e.g. Granja & Visentin, 2024; Knutsen, 2024; Perez et al., 2023). Accordingly, impact assessments typically distinguish between key categories of international students, including:

- **Short-cycle mobility students** including participants in language courses, study abroad programmes, and winter or summer schools, typically stay abroad for up to one month. Their economic impact is primarily short-term, linked to travel, accommodation, subsistence spending, and the creation of jobs in the tourism and service sectors.
- **Credit mobility students** spend part of their studies abroad and receive academic credits for their coursework. Most are funded through Erasmus+, national mobility schemes, and institutional grants or scholarships as well as students' own resources. Their overall impact extends beyond local spending to include contributions to internationalisation at host institutions and potential future academic or professional ties.
- **Degree-seeking students** pursue full Bachelor's, Master's, or PhD programmes, either as free movers or scholarship holders. Due to their longer stays and deeper integration into host systems, their economic imact can be more complex and far-reaching—encompassing tuition fees and living expenses to part-time employment and long-term tax contributions.
- **International graduates** who remain in the host country after graduation whether temporarily or long-term contribute through labour market participation, tax revenues, and in some cases, engagement in knowledge production, innovation, and entrepreneurship, particularly at the postgraduate level.

1.2. Initial and wider economic effects: Input-output modelling

Most of the country-level economic evaluations of international student mobility (Campus France, 2022; Education New Zealand, 2020; Global Affairs Canada, 2022; Infometrics, 2018; London Economics, 2021; Universities Australia, 2018) draw on the concepts of **direct net economic contribution** of the incoming students (once the

additional income brought in by incoming students has been offset by the related costs of the host country) and wider (amplifying) macroeconomic effects of this net contribution, based on the input-output (I-O models).

The **net economic contributions** refer to the initial, immediate spending associated with international students. Examples include: tuition fees and academic service payments to institutions; student spending on rent, food, local transport, and entertainment; once offset by the university expenditures directly related to serving international students (e.g., hiring staff, offering support services). This spending directly stimulates the sectors where the money is spent—education, housing, retail, food services, etc.

These wider (amplified) effects at the level of the national economy are most often estimated using input-output (I-O) models, a well-established economic tool for tracing how spending in one part of the economy ripples through other sectors.

Direct effects in input–output models typically originate from expenditures directed at a specific sector of the economy—for example, when an investment project injects resources into industry x, generating measurable sector-specific output. In the context of international student mobility, however, most expenditures relevant for economic-impact estimation are consumption expenses distributed across many sectors (e.g. retail, housing, transport, hospitality). These diffuse spending patterns do not constitute a single identifiable sectoral injection and therefore, strictly speaking, do not generate direct effects in I–O terminology.

Exception arise in systems where tuition fees are charged, as payments made by international students to higher education institutions represent a clear, sector-specific inflow and thus qualify as direct effects (e.g. BEA, 2019; Deloitte Access Economics, 2016; Geis-Thöne & Plünnecke, 2025; Global Affairs Canada, 2022). In countries or mobility schemes where tuition fees are absent or negligible—as is the case for Erasmus+ credit mobility—student-related spending flows entirely into multiple downstream sectors, and therefore no direct effects emerge by definition.

Indirect effects capture the second-order economic activities generated by the suppliers and industries that benefit from student-related spending. For example, a university that buys catering services or equipment due to increased student numbers stimulates those sectors. A landlord who earns income from renting to students may then spend it on home improvements, generating further demand in construction or retail. These effects are typically short- to medium-term and less visible but still economically significant.

Input-output models help quantify these ripple effects by using national or regional economic data to estimate how much additional activity is triggered for every euro (or other currency unit) spent.

Some models go one step further and also include **induced effects**—economic activity generated when employees of directly or indirectly affected businesses spend their wages in the local economy (e.g., buying groceries, going out, paying rent) (e.g. Global Affairs Canada, 2022; Kluge & Schnabl, 2019; London Economics, 2023; Universities UK, 2014; Universities Australia, 2018).

Induced impacts are longer-term and more diffuse, resulting from wage earners in affected sectors spending their income locally, contributing to wider economic growth and stability over time.

Table 1 summarises the range of economic effects generated by international student mobility across both short and longer-term horizons.

Table 1. Overview of short- and longer-term effects of student mobility

Type of effect	Short-term	Longer-term
Net economic contributions	Tuition and study-related payments (administrative, curricular, extracurricular)	Graduate employment, taxes, and social contributions
	Cost-of-living expenditures (housing, food, transport, leisure)	Progression into advanced academic or professional pathways
	Student consumption flowing to multiple sectors of the local economy	Post-study retention contributing to national talent pools
Direct effects	Expenditures received directly by host institutions (primarily tuition in fee-charging systems) and immediate service payments	Contribution to institutional capacity, research activity, and programme quality
Indirect effects	Spending by suppliers and service providers responding to student-driven demand (e.g., landlords, transport providers, local businesses)	Sectoral expansion driven by sustained demand
Induced effects	Consumption generated by wages paid to employees in sectors supported by student demand	Household consumption effects accumulating over time
		Lifelong connections, alumni networks, and consumer preferences
		Contribution to international cooperation, global value chains, and innovation ecosystems

1.3. Positive and negative effects

While many studies show that international student mobility generates clear financial and economic benefits, it can also produce unintended or uneven effects, particularly at the local level. One frequently cited concern is its **impact on housing markets**, especially in university towns where high concentrations of international students can contribute to rising rents and reduced housing availability for local residents (e.g. Department for Education, 2023; Fincher & Shaw, 2009; Gurran et al., 2022; Sage & Hubbard, 2013).

Another area of tension lies in the **labour market**, where international students and graduates—especially those who stay post-graduation—may be perceived as competing with domestic candidates, particularly in regions or sectors with high youth unemployment or limited job opportunities (Birrell et al., 2018; European Migration Network, 2023; Fincher & Shaw, 2009; Hazen & Alberts, 2006; Ruhs & Anderson, 2010). These concerns underscore the importance of context-sensitive impact assessments that account not only for the benefits of mobility, but also for its potential trade-offs, in order to inform balanced and sustainable policy responses.

2. Economic effects of degree-seeking student mobility

2.1. Common approaches in previous studies

Previous approaches to calculating the economic impact of degree-seeking international students commonly rely on **mixed-method** data collection, combining trusted administrative sources—such as national statistical data—with survey or interview-based inputs, for example from employers or alumni (Campus France, 2022; Global Affairs Canada, 2022; London Economics, 2023).

In many cases, studies aim to capture both the economic contributions and associated costs of international students (e.g. Campus France, 2022; Grasset & Menendez, 2024; Swedish Institute, 2021). This includes not only tuition fees and living expenses, but also social contributions (such as taxes or health insurance payments) and public investments in education, allowing for the calculation of **net economic impact**.

The **number of international students** is a **core metric**. However, some studies apply additional adjustments, such as factoring in dropout rates or the length of stay and use weighting to generate both baseline and more conservative impact scenarios (e.g. Swedish Institute, 2021).

Another core metric are **tuition fees** paid by international students and the average cost of living or consumption, often differentiated by students' country of origin and disaggregated geographically (e.g. by state or territory, as in the Australian and Canadian cases) (e.g. Global Affairs Canada, 2022; Australian Government Department of Education, 2024).

One common approach to calculating initial economic contributions is to multiply the number of international students in a given period with the tuition fees they pay and the average cost of living or consumption (e.g., Swedish Institution, 2021).

While degree-seeking students may also engage in **part-time employment**, their contributions through income generation and tax are generally excluded from these models due to the complexity of capturing the share of international students working during their studies as well as their partial (employee/student) status. These employment-related effects are more commonly assessed in relation to **international graduates**, whose full labor market integration is easier to quantify (section 5).

2.2. Useful metrics

The metrics used in previous international studies to capture the economic contribution of international students and graduates vary widely, ranging from personal, educational, and expenditure-related data to labour-market and innovation indicators.

Table 2 summarises these benefit-side metrics, highlighting the different data sources—national registers, statistical offices, migration authorities, surveys—and how they have been used across studies such as Campus France (2024), Study in Estonia (2023), and the Swedish Institute (2021).

Table 3 presents the corresponding cost-side metrics, including institutional expenditures, public subsidies, support-service costs, and social security spending, illustrating the diversity of inputs required to capture the full fiscal and operational costs associated with international students.

Table 2. International degree-seeking mobility – economic contribution metrics (benefits)

	Type of data	Metrics	Data sources	Prior studies
Key differentiators	Personal	*Country of origin of international students* *Registered place of residence* *Previous country of residence*	Population Register	Study in Estonia (2023) Campus France (2024)
	Education related	*Level of study* *Field of study* *Duration of study period* *State funding / scholarship status*	National statistics: national education information systems Enrollment data	Study in Estonia (2023) Grasset & Menendez (2024)
Core indicators – personal expenditure	Cost of access	*Visa fees* *Residence permit costs* *Procedural costs*	National migration statistics	Campus France (2024)
	Cost of living	*Housing, food, clothing, transport, study materials, communication, health insurance, leisure, and technology, etc.*	Averages based on national consumption statistics Cost of living requirement from migration agencies Survey-based estimates (self-declarations by students/graduates)	Campus France (2024) Australian Government (2024) Swedish Institute (2021)

	Type of data	Metrics	Data sources	Prior studies
	Cost of study	*Tuition fees*	National fee bands (regulated) Average sector fees (unregulated)	Campus France (2024) Australian Government (2024) Swedish Institute (2021)
Additional indicators – Family and friends expenditure	Cost of travel / stay	*Accommodation, transportation, catering, cultural activities*	National tourism boards statistics	Campus France (2024)

Table 3. International degree-seeking mobility – economic contribution metrics (costs)

	Type of data	Metrics	Data sources	Prior studies
Key differentiators	Personal	*Country of origin of international students* *Registered place of residence* *Previous country of residence*	Population Register	Study in Estonia (2023) Campus France (2024)
	Education	*Level of study* *Field of study* *Duration of study period* *State funding / scholarship status*	National statistics: national education information systems Enrollment data	Campus France (2024)
Core indicators - domestic expenditure on higher education (international students)	Dedicated staff hired	*Personnel hired* *Months worked* *Full Time Equivalents (FTEs)* *Salary* *Total personnel costs*	National statistics: Instituto Nacional de Estadística	Grasset & Menendez (2024)
	Cost of support services paid by HEIs at various levels	*Housing* *Orientation & welcome* *Cultural & local activities* *End of semester activities* *Medical insurance* *Excursions*	Unspecified	Grasset & Menendez (2024)
	Cost of public support agencies	*National agency operating costs* *Diplomatic network operating costs*	Unspecified	Campus France (2024)

	Type of data	Metrics	Data sources	Prior studies
	and services			
Public subsidies	Cost of living	*Housing* *Transportation* *Cultural activities (e.g., museum discounts)*	Survey	Campus France (2024)
	Cost of study	*State grants and scholarships* *Study loans*	National statistics: the Swedish Board of Student Finance	Swedish Institute (2022)
	Income and tax	*Social security expenditure for international students*	National statistics: the Swedish Social Insurance Agency	Swedish Institute (2022)

3. Economic effects of international graduates

3.1. Common approaches in previous studies

Most approaches to assessing the economic impact of international graduates or alumni rely on estimating their contributions—such as income generation and tax payments linked to their labour market participation (both as employees or entrepreneurs) during or after studies, including employment and post-retirement phases (e.g. Geis-Thöne& Plünnecke, 2025) .

Important differentiation is made between international graduates who stayed in a country of study and those who left within different time frames (i.e., immediately after graduation or within one year; between three to five years; within ten years or longer) (e.g. Elfferich, 2022; Nuffic, 2023; Geis-Thöne& Plünnecke, 2025).

Estimating the number of international graduates who stayed in a country of graduation is key to the applied models. One of the approaches is to estimate this number by multiplying the number of graduations among international students based on state exam results with the stay rate for different years (Swedish Institute, 2021). The next step consists in estimating the number of working graduates, which provides basis for calculating related effects such as income generation or tax payments.

More qualitative metrics used to evaluate the economic impact of international alumni who left the country include, for instance, lifelong consumer behaviour, positive attitudes to a country, and openness to cooperation (e.g. Campus France, 2024). The related data is typically collected through graduate tracking surveys, interviews, or social media analysis.

3.2. Useful metrics

Table 4 summarises the main types of data, indicators and sources used in international research to assess the economic contributions of international graduates and alumni. It highlights the breadth of metrics applied—from personal, educational and employment records to income, taxation, entrepreneurship and expenditure by visiting family and friends—and illustrates how previous studies operationalise these dimensions.

Table 4. International graduates & alumni – economic contribution metrics (benefits)

	Type of data	Metrics	Data sources	Prior studies
Key differentiators / background data	Personal	*Country of origin of international graduates* *Registered place of residence* *Previous country of residence*	Population Register	Study in Estonia (2023) Campus France (2022, 2024)
	Education related	*Level of study* *Field of study* *Duration of study period* *State funding / scholarship status*	National Statistical Offices - national education information systems Enrolment data	Study in Estonia (2023) Grasset & Menendez (2024)
	Employment related	*Periods of employment, type of employment relationship, duration, workload*	National Statistical Offices – Employment Register	Study in Estonia (2023)
		Largest employers of international students and alumni	Survey-based	Study in Estonia (2023)
Core indicators – total earned income	Access to the labour market	*Residence / work permit costs*	National migration statistics	Swedish Institute (2021)
	Income and tax	*Employee payments: income tax and social security contributions and revenue for municipality and state*	National income statement Average salary earned Income tax rate	Study in Estonia (2023) Campus France (2024) Swedish Institute (2021)
		Income for consumption or savings (i.e. cost of living metrics)		Swedish Institute (2021)
Additional indicators – Family & friends expenditure	Cost of travel / stay	*Housing* *Transportation* *Cultural activities (e.g., museum discounts)*	National tourism boards statistics Survey	Campus France (2024)
Additional indicators - Innovation		*Number of start-ups created by international graduates*	Company register + population statistics	Study in Estonia (2023)

4. Economic effects of short-cycle student mobility

The economic effects of short-cycle student mobility are typically monitored in countries that receive large numbers of such students, including those studying foreign languages. This includes countries such as Australia, Canada, the UK, and the USA, as well as France, Germany, Italy, and Spain (Bureau of Economic Analysis, 2019; Deloitte, 2016; Global Affairs Canada, 2017; Grasset & Menendez, 2024; London Economics, 2021; Uni-Italia & CRUI, 2023).

When short-cycle mobility is included in broader economic impact studies (e.g. Grasset & Menendez, 2024), student expenditure is often estimated using **tourism-related data**. In such cases, spending patterns are typically approximated based on tourist profiles and statistics from national or regional tourist boards, providing a proxy for short-term student consumer behaviour.

Methodologically, capturing the number of short-term international students presents several challenges, particularly when they do not require a visa and are not formally enrolled in a higher education institution. This is especially the case for participants in summer or winter schools, whose mobility is often informal or short in duration. For language training students, enrolment figures are typically derived from language training centres. For example, in Australia, data on English Language Intensive Courses for Overseas Students (ELICOS) is used to estimate the number of international language learners.

5. Economic effects of Erasmus+ student mobility

5.1. Common approaches in previous studies

To date, only a small number of countries have carried out dedicated analyses of the short-term economic effects of incoming Erasmus+ students and staff, with the most notable studies undertaken in Austria (Kluge et al., 2018), Slovenia (Kluge & Schnabl, 2019) and Spain (Grasset & Menendez, 2022; Grasset & Menendez, 2024). These studies adopt broadly comparable approaches while also differing in important methodological dimensions.

The Austrian and Slovenian studies (Kluge et al., 2018; Kluge & Schnabl, 2019)—both conducted by the Institute for Advanced Studies (IHS), Vienna—apply a harmonised analytical framework. They examine incoming **Erasmus+ participants across all education sectors** (school, VET, higher education and adult education) and employ I-O models to estimate not only direct expenditure but also the wider indirect and induced effects on the national economy. These models capture Gross Value Added (GVA), employment effects measured in FTEs, and fiscal revenues, with results presented by region (Austria) and by economic sector (Austria and Slovenia). This approach allows the studies to move beyond consumption-based estimates and quantify the broader economic spillovers generated by mobility flows.

By contrast, the Spanish studies (Grasset & Menendez, 2022; Grasset & Menendez, 2024) focus exclusively on higher education and restrict their analysis to the direct spending of incoming Erasmus+ students and staff. They rely on different indicators and national data sources, providing a narrower but complementary perspective on mobility-related economic contributions. As outlined in the following sections, the Spanish analyses illustrate how methodological choices—particularly regarding scope and data availability—shape the resulting estimates and the types of effects that can be captured.

5.2. Education metrics and data sources

Table 5 provides a comparative overview of the education-related metrics used in the Austrian (Kluge et al., 2018), Slovenian (Kluge & Schnabl, 2019) and Spanish (Grasset & Menendez, 2024) economic impact studies of Erasmus+ mobility, highlighting common indicators—such as country of origin, duration of stay and mobility flows—as well as areas where data availability varies, including age, regional destination data and coverage of outgoing participants.

Table 5. Erasmus+ mobility – education metrics

Metrics	Austrian study (2018)	Slovenian study (2019)	Spanish study (2024)
Number of incoming students/pupils and staff, per education sector, per reference year	X	X	X Only students Only HE
Number of outgoing students/pupils and staff, per education sector, per reference year	X	X	X Only students Only HE
Country of origin of incoming	X	X	X
Age	X	X	n.a.
Duration of stay of incoming	X	X	X
Duration of stay of outgoing	Likely, though not specified	Likely, though not specified	Likely, though not specified
Region/county/ province of destination for incoming	X	X	n.a.

Across all three cases, the indicators draw on administrative data provided by the Erasmus+ National Agencies in the respective countries—OeAD (Austria), CMEPIUS (Slovenia) and SEPIE (Spain)—ensuring consistency and comparability of mobility records.

5.3. Economic indicators and data sources

Table 6 compares the key economic metrics used in the Austrian, Slovenian, and Spanish economic impact studies (Kluge et al., 2018; Kluge & Schnabl, 2019; Grasset & Menendez, 2024) to estimate the benefits generated by incoming Erasmus+ participants for the host country. It highlights the methodological choices, data sources, and assumptions underpinning each study, illustrating both shared approaches and important national differences in how economic contributions are calculated.

Table 6. Erasmus+ mobility – economic contribution metrics (benefits)

Metrics	Austrian study (2018)	Slovenian study (2019)	Spanish study (2024)
Size of the E+ grants for incoming	Method: E+ grant per month Data source: E+ NA database	Method: E+ grant per month Data source: E+ NA database	Method: E+ grant per month Data source: E+ NA database
Average amount spent per month by incoming	Method: For stays longer than 30 days – estimates based on the monthly spending of domestic students, modelled based on spending of 1st year incoming degree-seeking students in Austria (includes accommodation, subsistence and leisure spending) Overall: average spent by incoming lower than by domestic (by 20%) – implication for overall effects Weighted by country of origin (based on the assumption that students from different countries have different expenditure patterns) Data source: National Social Survey Method: For stays shorter than 30 days – estimates based on tourist behaviour Data source: Tourismus Austria	Method: same as in Austria Overall: average spent by incoming similar to than of domestic (only 5% difference) – implication for overall effects IMPORTANT: not weighted by country of origin of incoming (different data source, with less differentiation) Data sources: EUROSTUDENT	Method: Estimates of cost of different types of accommodation in major cities with the largest cohorts of incoming Data source: CBRE Insights and Research Team (student housing data) Estimates for living and expenses costs Data source: Not referenced
Travel of incoming that can be attributed to domestic companies	Method: Estimated lump sum per mobile individual Data source: Not referenced	Method: Estimated lump sum per mobile individual Data source: Not referenced	n.a.

Metrics	Austrian study (2018)	Slovenian study (2019)	Spanish study (2024)
Income received directly by the host NA/HEIs through the Erasmus+ programme	Method: Estimate of the remaining part of the Management fee (not re-invested in funding additional outgoing mobilities) Includes also a share of the management fee for outgoing students under KA2 Data source: E+ NA database	Method: Organisational support received by HEIs under KA1 for mobilities only Data source: E+ NA database	n.a.
Costs paid by outgoing in their home country, while abroad	Method: Only for those that stay abroad less than 30 days Estimates based on housing, cost of study and utilities, as a share of the monthly expenditure while in the country Data source: National Social Survey	Method: Same as in Austria Data source: EUROSTUDENT	n.a.
Gross Value Added (GVA) effects	Method: All expressed in Direct (0), Indirect and induced effects Data source: Input-Output table, per sector, produced by Statistics Austria as part of Annual Accounts	Method: All expressed in Direct (0), Indirect and induced effects Data source: Input-Output table, per sector, produced by Slovenian Statistical Office as part of Annual Accounts	n.a.
Employment effects			
Taxes and levies effects			

Table 7 summarises the cost components considered in the Austrian, Slovenian, and Spanish studies when estimating the financial outflows associated with outgoing Erasmus+ participants. It outlines how each study measures programme-level grants and the estimated domestic expenditure of outgoing students, highlighting differences in data sources, national methodologies, and the inclusion of country-specific top-ups.

Table 7. Erasmus+ mobility – economic contribution metrics (costs)

Metrics	Austrian study (2018)	Slovenian study (2019)	Spanish study (2024)
Size of the Erasmus+ grants provided for outgoing	Method: Only Erasmus+ grant Data source: E+ NA database	Method: Only Erasmus+ grant Data source: E+ NA database	Method: Erasmus+ grant and top-up provided by Spanish authorities Data source: E+ NA database
Average amount spent by the outgoing domestic students per month in the home country	Method: Estimates based on the monthly spending of domestic students (includes accommodation, subsistence and leisure spending) Data source: National Social Survey	Method: same as in Austria Data sources: EUROSTUDENT	n.a.

5.4. Depth and accuracy of previous findings

The three studies assess only the **short-term economic effects** of incoming Erasmus+ students and staff and rely on several assumptions and estimates to compensate for gaps in data availability, accuracy, and comparability. Certain elements are treated as neutral—assumed to have no net effect on overall economic outcomes—even though they may warrant further examination.

First, the cost of educating incoming students in host HEIs/countries is treated as stable or neutral, on the assumption that these costs would have been largely the same had outgoing students remained at home. In practice, however, this may vary depending on the balance between incoming and outgoing students. Additional resources might be required, for example, when teaching incoming cohorts in a foreign language, which may necessitate specialised staff or adapted course delivery. The magnitude of these effects is also likely to differ across countries depending on the prevalence of English-taught provision and the linguistic distance between the host and sending countries.

Second, the studies do not distinguish between incoming students undertaking academic study and those completing internships, despite the likelihood of differing lengths of stay, spending patterns, and economic contributions. Interns placed in companies may generate additional economic value by contributing to production processes or service delivery, which is not captured under the current approach.
Compared with studies on degree-seeking international students and international graduates, the Erasmus+ focused analyses also omit several potentially relevant dimensions:

- Paid work undertaken by Erasmus+ students during their mobility period, which could generate income tax and social security contributions, as well as additional indirect and induced effects.
- Economic effects of traineeships, where student work contributes to firm output and may have measurable gross value added (GVA) impacts.
- Expenditure by visiting family and friends, which—although likely smaller in scale than for long-term degree students—still represents local consumption and travel expenditure that could be quantified.

These aspects were excluded due to limited or non-standardised data but could be incorporated into future analyses, subject to preliminary feasibility checks and the availability of reliable, comparable sources.

Overall, the limitations observed across the three studies point to the need for a more comprehensive and standardised approach to data collection on credit mobility. Future research should expand the scope of analysis to include additional economic dimensions and adopt harmonised methodologies, enabling more robust cross-country comparisons and a fuller understanding of the economic contribution of Erasmus+ mobility.

6. Conclusions

The review shows that countries employ a wide range of methodological approaches to assess the economic effects of international students, reflecting differences in national contexts, available data, and policy priorities. Despite this diversity, several core elements emerge across studies: **reliance on administrative registers**, the use of **mixed-method** expenditure data, and the application of **input–output modelling** to capture broader macroeconomic effects. Together, these approaches offer increasingly robust insights into how international students contribute to national economies through their spending, tax payments, participation in the labour market, and longer-term engagement as graduates and alumni.

At the same time, the analysis highlights **substantial variation** in how different student groups—degree-seeking students, short-cycle learners, international graduates, and Erasmus+ credit-mobile students—are treated within economic evaluations. While evidence on degree mobility and international graduates is well-established in several countries, the **effects of short-cycle mobility and Erasmus+ credit mobility remain comparatively underexplored**. Existing studies on Erasmus+ mobility are limited in scope, differ in their treatment of key cost and benefit categories, and rely on assumptions that constrain the accuracy and comparability of findings. These gaps underscore the need for more consistent data collection and methodological alignment across Europe.

The review also identifies several **areas where current approaches could be strengthened**. Important dimensions—such as **students' part-time employment**, contributions generated through traineeships, or **expenditure by visiting family and friends**—are often excluded due to insufficient or non-standardised data. Similarly, the costs associated with educating incoming students or the differentiated effects of study versus traineeship mobility remain largely unexamined. Addressing these gaps will require closer cooperation between higher education institutions, national agencies, statistical authorities, and researchers to improve data availability, harmonise definitions, and enable more granular and longitudinal analysis.

Looking ahead, there is a clear need for **more systematic, multi-country studies** that apply harmonised metrics and shared analytical frameworks to evaluate the economic effects of international student mobility—including Erasmus+ credit mobility—across Europe. Such efforts would enable more meaningful cross-country comparison, strengthen the evidence base for policymaking, and support a more comprehensive understanding of the socio-economic value generated by international learners. As European-level ambitions for learning mobility continue to rise, improving the depth, quality and comparability of economic evaluations will be essential for shaping future programme design and informing national and institutional strategies.

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