



Summary Report

Graduate Tracking Peer Learning Activity

Making effective use of graduate tracking surveys at system and local level

23 – 24 May 2023, online

The Peer Learning Activity aimed to help countries establish or further develop graduate tracking systems in their countries by providing information on how graduate tracking surveys at system and local level can be effectively used. It was virtually hosted by Sweden and attended by 76 participants, which included decision makers and experts in national authorities and statistics agencies¹.

The Peer Learning Activity provided information on the design, implementation and use of graduate tracking systems in Initial Vocational Education and Training (IVET) and Higher Vocational Education (HVE) in Sweden. It also provided examples of a provider-level graduate tracking system in Sweden and how this is supported by the HVE national agency. The Peer Learning Activity also included presentations from France on two of the different measures they have in place to track graduates, including a survey-based measure (the generations survey) and a measure using linked administrative data (InserJeunes).

1.1 Graduate tracking systems in Sweden and France

1.1.1 The VET system in Sweden

The Swedish education system is highly decentralised, but on a national level, the provision of VET is a shared responsibility of two agencies in Sweden:

- IVET (targeting youth aged 17-19 years old and adult education) falls under the responsibility of the National Agency for Education;
- HVE is under the responsibility of the National Agency for Higher Vocational Education.

IVET provided within the frame of upper secondary education is non-compulsory and is offered via 12 national programmes with the length of three years. IVET is offered in school-based settings and via apprenticeships; all programmes include work-based learning (WBL) components. The larger programmes are male dominated (programmes focused on electricity, construction etc.) and there is a general lack of students who choose to attend these programmes.

IVET is also available as adult education (i.e., for anyone over the age of 20) where individuals can study a tailored mix of IVET modules. These modules are provided by municipalities which can choose what programmes to offer depending on the needs of

¹ Representatives of the European Commission were joined by representatives from BE, CY, DE, EE, EL, ES, FI, FR, HR, HU, IE, IT, LV, LU, MT, PL, RO, SK and SE. They were also joined by representatives from the European Training Foundation.

the individual and the local labour market. 'Health and social care' is the most common programme within IVET adult education.

HVET are responsive programmes that are designed to meet labour market needs. Industry stakeholders are involved in the design of programmes which are initially approved for a limited time period (usually three cohorts) after which providers need to reapply and re-evaluate the programme. The National Agency for Higher Vocational Education has a skills intelligence team and each HVE programme has a local managing board to oversee the implementation. Industry are also required to have active roles in the programmes (e.g., supplying WBL and equipment, providing lectures, participate in the managing board).

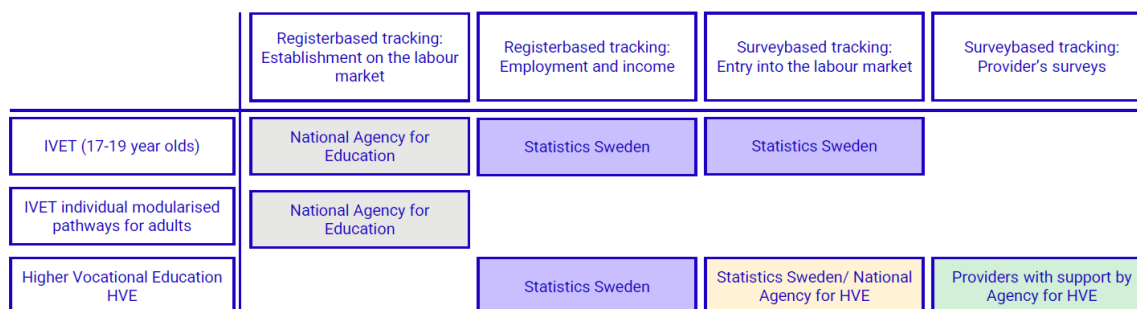
Sweden currently has around 3,400 HVE programmes, 230 providers and 88,500 students; with graduation rate of 70% and employment rate of 90%. The largest fields of study are finance, administration and sales.

1.1.2 Graduate tracking in Sweden

At a system level, Sweden employs a range of different measures to track VET graduates, as shown in Figure 1. These comprise measures that use both linked administrative data and surveys. The work is undertaken by the National Agency for Education, the National Agency for HVE and Statistics Sweden.

Figure 1. Graduate tracking overview in Sweden

Graduate tracking in Sweden (VET)



For IVET the National Agency of Education produces annual graduate destination statistics that combine data from different registers using a personal identification number. The measure is called "the establishment on the labour market" and is defined based on different elements. For example, you are established on the labour market if you have a continuous salary and have not been unemployed. Students aged 17-19 years old are tracked every year for a period of 5 years and adults for a period of 2 years. The data is publicly available for all upper secondary education (including IVET) and disaggregated by programme, industry, type of occupation, county, municipality, and school, where there are sufficient numbers for the data to not be disclosive.

For HVE, Sweden employs a graduate tracking approach that uses both linked administrative data and a survey. Statistics Sweden produces graduate tracking data that combines a number of administration data sources (including tax data, learning registries and census data). The National Agency for HVE and Statistics Sweden carry out an annual survey of all HVE graduates. The annual survey uses register data for

making good estimates and for publishing on domains, The data from both measures are publicly available.

The use of linked administrative datasets and surveys are seen as complementary for HVE. This relates to both graduate tracking methodologies having their strengths and weaknesses. The administrative data is nearly comprehensive and can therefore track all learners but there is a time delay, for example, the income data is published with 15 months delay and thus, for the case of graduate tracking there is a risk that the findings would be outdated. The annual survey data including all graduates the year before is less comprehensive due to non-response and has a higher cost to roll out – particularly if done through the mail system. However, it produces results more quickly and information about non-factual aspects can be gathered.

The provider-level graduate tracking survey supported by the National Agency of HVE is sent to graduates by providers six months after graduation. Although there are two core questions in the survey that are developed by the agency, the providers can also ask additional questions and do various follow-up initiatives which they do not need to report nationally. This is used by providers to gain a more targeted understanding of needed programme revisions and can capture more practical detail that can be incorporated into course design.

From autumn 2023, the National Agency for Education is to publish reports for every region that include information on the programmes offered in the region, student demand and the forecasts on labour market demand. The report will also contain graduate tracking data. This new approach of regional planning data is expected to help local providers to make use of graduate tracking data. This is to support schools that have, since 2022, been advised by the government to take labour market needs into account when deciding which programmes to offer and how many students to enrol in each programme².

1.1.3 Establishing the InserJeunes graduate tracking system in France

InserJeunes was introduced following a new law in 2018 that aimed to ensure every citizen has the freedom to choose one's own professional career. This required the publication of an indicator for every training institution or VET school on their employment rate each year. InserJeunes also gives the added value of each institution, taking into account the local labour market, training offered and the profile of their students or apprentices. This information could not be collected from a survey as it required information for every institution.

Prior to the introduction of InserJeunes, France had two annual surveys that examined the professional integration of young people – the participation in active life survey and professional integration of apprenticeships survey. The surveys were short and measured if a young person was employed or not seven months after graduation, the contract type and main characteristics of the employer. The surveys had a response rate of around 50%.

The InserJeunes system measures the professional integration of young people in the labour market. It covers those undertaking apprenticeships and VET high school students, with a focus on their final year of training. The goal of the system is to help young people in VET with their choice of VET centre or training, based on a set of objective indicators. It provides training centres and VET schools with more information on their training provision, and it informs public actors and public debate about VET training.

² Statistics Sweden and the Swedish National Agency for Higher Vocational Education (2023) Country background note Sweden (available here: <https://next-ma.eu/landing/ple-graduate-tracking-suveys-23-24May>)

InserJeunes combines multiple administrative databases for those in the final year of their training programmes. It provides data at 6, 12, 18 and 24 months after a young person has left training. In the absence of a unique identifier, it employs 'fuzzy matching' to link education registries with employment databases using a combination of name, sex, birthplace and date of birth). In situations where there are a small number of students in a programme, information is not published to prevent identification.

The first results from InserJeunes were published in 2021 for young people who completed their VET programmes in 2019. It included information on all VET graduates excluding agriculture graduates, which should soon be added to the system. It is a joint initiative implemented by two departments, the statistical service of the Ministère de l'éducation nationale (DEPP) and the one of the Ministry of Labour (Dares).

Indicators are published at national, regional, school district and VET school/training centre level. The information on the added value is only produced at VET school/training centre level. There is a consultation phase with VET schools/training centres before the results are published and they are given early access to the information and have an opportunity to ask questions and raise any issues.

The results are available via a public website, and the data is used in studies and papers are produced covering different cohorts/time periods. Two papers were also published in English ; they concern the cohort leaving a vocational training in 2020, 6 months after the end of the training, and can be found [here](#) for the apprentices, and [here](#) for the high school students. There will be a forthcoming study on the matching between the graduates' jobs and area of VET study.

1.1.4 Generations survey in France

The French Generation Survey has been implemented by CEREQ since 1997. The survey looks at students (also early leavers) from all education levels and it also considers socio-economic contexts. For HEI, all providers send the full list of students to CEREQ who in turn, compile the data and draw a sample.

The questionnaire collects information on education attainment, labour market experience, socio-demographics and career perspectives as well as additional themes like the impact of the COVID-19 pandemic and the person's housing situation. It also allows for the collection of data about if a person is living abroad and potential gaps years (a break from studies or employment). It allows intergeneration comparisons and, by bringing together data from different years, detailed analysis of small sub-groups which would otherwise not be possible to study, such as single mothers, immigrants etc.

The historical information gained via the Generations survey can allow for comparisons of results for graduates' integration into the labour market across different generations. It also highlights differences and similarities between levels, fields and paths of education.

The findings from the Generation survey cannot be disaggregated at a provider level because it is a sample survey where not all providers are represented. Rather it is mostly used at macro-level by policymakers to explore trends in graduate outcomes as well as further academic research. Sometimes the results are also presented by the media.

1.2 Dealing with variable response rates – experiences of the Swedish graduate tracking system

Ensuring high response rates to graduate tracking surveys is a key challenge in Sweden. The higher the response rate the greater confidence in the data. Additionally, it also allows for greater disaggregation of the data by programme area, municipality and by provider level.

For HVE, there is a provider-level approach as well as traditional survey conducted by central agencies. For the provider-level approach, providers are used to disseminate the survey. This is because they have a closer relationship with students which means they will be more likely to respond. This approach does however require provider buy in. One approach that is employed in Sweden to do this is to allow providers to add their own questions to the survey. This means that providers feel they can use the survey to gather information that is relevant to them.

In Sweden, administrative data is also used to pre-populate some of the fields in the survey on graduate destinations. This helps shorten the survey as it means it does not have to capture information on employment status, salaries, student and programme information which are better collected from linked administrative datasets. The linking is relatively straightforward through using the personal identification number. Lately, a new data source, monthly data from the tax authority, has been made available for producing statistics which will allow the graduate tracking to be developed further.

Students are not provided any monetary incentive to fill in the survey. However, the intention is to make students feel like they can contribute to the future of the education programme that they attended. This is promoted when the survey is sent out. As of 2022, Statistics Sweden is using the digital mailboxes when communicating with graduates as it is cheaper.

Information on data protection is sent out at the same time as the survey. By answering the survey, the graduates agree to their answers being combined with administrative data.

However, even when employing these measures, it is important to employ safeguards to ensure that the findings from the survey are representative of the student population. Sweden employs the use of a random sample to ensure unbiased estimation of population values (IVET), the HVE survey is a full sample survey. However, it is most likely there is bias in the non-responses to the survey – some groups of students may be less likely to respond to the survey than others.

To address this, Statistics Sweden conducts non-response analysis to identify if there are any differences in the characteristics of those that responses to the survey and those that did not. This is based on register variables available for population or full sample. Metrics that can be used include, region, percentage in employment (using data from linked administrative datasets), gender, age, income, country of birth, education level, field of education, geographical information, education level of parents, grades.

If there are differences in responses and non-responses, then results should be weighted for certain sub-groups of respondents so that the characteristics of the achieved sample of respondents matches the characteristics of the population. The variables used should correlate both with the most important variable in the survey and with the response rate. The same model should be used over time as a change in variables can change the results. The process is complex but can be automatically done by most statistical packages. Statistics Sweden uses a specialized SAS macro (ETOS), but it can also be done in R or SPSS.

1.3 Working group discussions on effective practice in using graduate tracking surveys

Break out group discussions on the implementation of surveys at a system level found:

- Among attendees, the use of administrative datasets and surveys together in national graduate tracking systems is quite common, but often they are run separately rather than the data being linked.
- Countries that are developing new graduate tracking approaches are most likely to focus on one methodology. Some countries have focused on developing

systems for linking administrative data for graduate tracking, whereas others are introducing surveys. In these countries the use of a mixed survey and linked administrative data approach to graduate tracking is more likely to be realised in the medium to long-term.

- There was widespread agreement in the group of the value of having graduate tracking measures that use linked administrative datasets and surveys. As one attendee reported: "Administrative data as the baseline, surveys to fill the gaps". Specifically:
 - Graduate tracking surveys can complement administrative datasets by providing more detailed information, addressing gaps in existing information and to provide further information at local / regional level. The information from surveys can be used to gather satisfaction levels on specific courses, and the results can be collated and used to increase the quality in VET and HE.
 - Survey information can provide information on the added value of education, for example on the skills and competences used, job satisfaction and the views of graduates. This type of information is not possible to be collected via administrative data.
 - In contrast, administrative data can provide information on the overall labour market situation of graduates on a national level. By using other administrative datasets national agencies and providers can have a macro level view of graduates. Some countries noted that administrative data may have greater value for national level decision makers and politicians.
 - Administrative data was also felt to provide value in shortening surveys, which would have a cost saving in countries.
- In terms of challenges, the most common issue was ensuring high response rates. Countries frequently reported difficulties in achieving a response rate of over 20%. Some solutions to this from the discussions were:
 - Setting out upfront the purpose of the survey and the reason why graduates should complete the survey.
 - Providers' administering the surveys as they are much closer to graduates as they understand the reason and added value of completing the survey. However, this also needed to be underpinned by awareness raising so providers' see the value of the data collection.
- A key point for conducting surveys is that it is important to have the correct, up-to-date contact information for graduates. Many graduates may change their email addresses after graduation and not keep in touch with their providers, thus making them almost impossible to contact. In some countries, such as Germany, where no central IDs are used it may not be possible to use personal data outside of certain organisations or data collection processes.
- Data protection issues was also seen as a key challenge in some countries. This is more of an issue for surveys than administrative data because surveys require personal information (name, email addresses) and can in some cases incorporate information from administrative data (such as salaries). All countries therefore need to have strong data security processes for handling survey data.

1.4 Graduate tracking conducted by VET providers in Sweden

During the second day of the PLA, representatives from two Swedish HVE providers and the National Agency for HVE participated in a panel discussion on local perspectives of

graduate tracking. The panellists shared their experiences of working with graduate tracking.

The providers employed different approaches to graduate tracking:

- One provider reported how they combined surveys with data collection through LinkedIn to track graduates. Using LinkedIn was found to be effective (around 90% of all students via LinkedIn) as it was built into the design of the VET programme. Students are upfront given a lesson on employability which includes a session on developing a LinkedIn page and using social media to find employment. As part of this process, the tutors connect with the students on LinkedIn. When the learners complete their course, their LinkedIn profile can be used to track their destination. LinkedIn is a complement to the traditional provider-level survey which is supported by the National Agency for HVE.
- The other provider follows their students by sending surveys six months after their graduation and then again, after 2 and 4 years. The questions are designed to understand what type of education that graduates need when entering the labour market. The response rate is high (around 90%) since the school actively calls students who have not responded to the survey. The survey helps the school to understand to what extent their graduates work as well as how the school can improve the programmes (i.e., the survey goes further than the information they need to submit to the national authorities).

Both graduate tracking systems are linked to internal and external provider management. Internally, the data from graduate tracking is used by the provider management board that meets four times per year. One of the meetings is particularly aimed at analysing the responses and identify what can be done to improve their programmes. Students are also represented in the management board and can give direct feedback.

At a system level, graduate tracking is regarded as an important component of quality management. As such, the national authority aims to support providers to develop effective systems, which includes providing diagnostic tools to providers and in discussing the methodology and results with schools. The National Agency for HVE follows up on the findings with the local managing boards to ask if they are content with the result and if not, what they are doing to improve the situation. A negative result from graduate tracking does not necessarily mean that a programme is automatically losing its accreditation.

The National Agency for HVE highlighted the importance of having an open nurturing relationship with providers which means providers are encouraged to be honest. Otherwise providers could be encouraged to collect poor quality data which provides an overly positive picture of their provision. To ensure this the agency ensures that they do not use national benchmarks, but rather empowering providers to identify areas of improvement.

The National Agency for HVE publishes annual reports on the quality of VET and cover different areas and highlight both challenges and the best practices. The agency also facilitates conferences and videos on topics like graduate tracking.

Graduate tracking cannot be the sole driver of the VET provision system. For example, dental nurses have 100% employment rates but there is a need for more construction workers on the labour market, even though construction graduates generally have lower employment rates. All programmes need to be understood from a systematic level which takes socio-economic factors into account.

1.5 Discussions in working groups of effective graduate tracking among VET providers

Attendees in the event were split into parallel working groups to discuss key factors that could contribute to effective graduate tracking by VET providers.

1.5.1 Working Group 1: Gathering feedback from employers and graduates

Participants highlighted that gathering feedback from these two groups have some similar challenges, and there are also some unique aspects for each group as well. In terms of similarities, it is important to keep surveys very short and that surveys are organised at suitable times in the year (i.e. that multiple surveys are not sent out close to together). This can help to reduce survey fatigue. For both target groups, participants also noted that it is important to clearly explain the reason and the value of their responses. Selling the benefits of the survey can be challenging for both graduates and employers, but it is important to do so in order to maximize response rates as much as possible. In addition, it is important to have the correct contact details for employers and graduates.

In terms of employers, it can be challenging to find the appropriate person within an employer to complete the survey. This can be more challenging in larger companies, but they may have a dedicated HR department who may be able to respond to such requests. However, in SMEs, it can also be difficult to get hold of someone who has the time to complete a survey. Chambers of commerce can play an important role in working with employers, particularly SMEs, to collect information.

There is also a communication piece required with employers as they may assume that the information requests are relating to individual performance, rather than checking that the training is effective.

In terms of graduates, it can be particularly challenging to keep their motivation to respond to surveys over a certain time period, particularly for graduates who may move for work or for other reasons.

Providers have a key role in collecting feedback from employers and graduates. They can use the information to find out about the satisfaction levels in their courses, thus helping to make improvements and drive forward the quality of provision. Information gained from employers and graduates can also be used to inform career guidance, but the information needs to be timely and shared with career counsellors in a user-friendly way.

The information requested from employers and graduates needs to come from two separate data collection tools. This is to ensure that the respondents are clear on what they need to provide, and the survey is tailored to them as much as possible.

1.5.2 Working Group 2: Surveys for providers' success

It is useful to have in place relevant high-level strategies that are then mirrored and filtered down to provider level. This can help to ensure that provider level actions and delivery mirrors key areas, such as digital skills and green skills. In addition, in several countries management boards (or steering committees) have been established at programme level to provide timely feedback on plans or implementation. Such boards can directly include employers, and other labour market actors, to ensure that their voices are heard, and they have a direct influence over the direction of future programmes.

Participants in several countries, such as Ireland and Estonia, also noted that micro-credentials can be developed to address emerging trends in different economic sectors. They allow providers to react quickly to the needs of the labour market however there needs to be appropriate tracking systems in place so that their relevance and outcomes for graduates can be monitored, and the lessons can be used for future service delivery.

National agencies can play an important role in keeping and getting in contact with providers as well as keeping records of contact details. They can also use the information to draw conclusions on what is required or trends at a higher level (including trends on skills mismatches), pulling together and identifying specific needs for VET institutions and other labour market actors. National agencies can also share best practices from

different providers, provide guidance and support (in some cases) and encourage providers to conduct surveys and use the results.

1.5.3 Working Group 3: How to manage surveys at provider level

It is important to recognise that there is diversity in the quality and take up of surveys at provider level. Graduate tracking information may sometimes be anecdotal and not always cover the entire cohort. In some countries, providers have 'alumni clubs' that keep in touch with graduates, and their progress in the labour market, and collect stories from graduates. However, these clubs are often 'opt-in' or rely on graduates providing up-to-date contact details, and therefore may not cover all graduates. There is space for improving and standardising the process and ensuring that it covers the full cohort of graduates going forward.

In order to make the positive steps forward, a cultural change is required in many countries to recognise the value of graduate tracking data. Data collection methods should be used to collect meaningful, timely information while providers should have the ability and freedom to make mistakes as they undertake the learning process of implementing such approaches. It is important that there is support for those providers who may find it more difficult or need advice on addressing specific challenges. Ultimately, there should be a focus on the implications for quality rather than just focusing on collecting information to fulfil procedural requirements.

1.6 Final reflections

The Peer Learning Activity identified that many participants have the same challenges in using administrative and survey information and taking them to the next level to link the datasets. Whichever data collection method is used, it is important to make the added value clear and the method as user-friendly as possible. Social media (e.g. LinkedIn), gamification and nudging can be used to address challenges around response rates. The move towards micro-credentials raises important questions around how to capture the competences and skills gained and how they are used in the labour market. It is important for policy makers and practitioners to collaborate, share new knowledge, tools and innovations particularly around the transition to digital and green skills.

There are however examples of good practice that can be employed to support the use of surveys in graduate tracking. Central to this is utilising the expertise and relationships of providers with students. However, this needs to be underpinned by awareness raising to ensure there is widespread understanding of the value of graduate tracking, and providers seeing a key path to how graduate tracking can improve their provision.