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Measuring emigration

Measuring emigration from Norway: Developments in the recent decade

Note by Statistics Norway*

Abstract

In the recent decade, the Norwegian National Population Register (NPR) has undergone significant modernisation, culminating in the implementation of the new Freg system in 2020. Fundamental changes include transitioning to electronic case processing, seamless communication with data-producing agencies, and developing digital portals to notify international migrations.

The NPR employs various control measures to identify unreported emigrations, including yearly clean-ups of non-Nordic EEA citizens and individuals without known residence. These measures, coupled with collaboration with agencies like the Norwegian Directorate of Immigration, aim to maintain the quality of the data.

Emigration data resulting from control work and following administrative decisions has some quality issues. Delayed recording of these events causes different challenges for the data users. Over-coverage in the resident population has implications for, among other uses, statistical analyses and decision-making in society based on the statistics.

In the past two decades, Statistics Norway (SSB) has followed the same principles and methods in coping with the below-standard quality of the emigration data. However, considering all the changes in recent years, SSB will have to go through its established approaches.

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I. Introduction

1. The inherent difficulty in detecting someone's departure, as opposed to their arrival, is a universal concern in migration registration and statistics. The challenge exists even in countries boasting a robust national population register system. This topic was discussed in papers presented at the UNECE Work Sessions on Migration Statistics in 2012 and 2014 (Vassenden, 2012 and 2014).

2. Since then, the Norwegian National Population Register (NPR)[1] has undergone substantial changes in its organisational, legal, and technical frameworks related to the capacity for emigration registration. These developments make it desirable to update the explanation of the system's functioning and to assess the current accuracy of emigration registration.

3. In particular, the NPR's control work deserves a thorough presentation.

II. General background for the topic

4. The first municipal population register (1906 in Oslo) aimed to have one common register in the municipality to register the inhabitants and their place of residence. In this way, Norway has a population register tradition that differs from the civil register tradition found in most other countries. In an NPR, 'place of residence'[2] is core information fully integrated into the register.

5. By 1946, all municipalities had a population register, facilitating ambitions to register all emigration from Norway. Full-coverage statistics on international migration were produced from 1951 onwards, and in 1958, the statistics were broken down by country of previous/next residence.

6. In 1964, a central, electronic mirror of the local card registers was set up (Central Population Register (CPR)). The 1995 version of it replaced the local card registers. From that year, there was only one physical NPR in Norway. It was updated electronically by the local register offices.

7. Statistics Norway (SSB) was in charge of the NPR until 1991, when the Norwegian Tax Administration took over.

8. In connection with an issue about administrative emigration in 2019, the Minister of Finance presented the NPR (Stortinget, 2019): "The NPR is the Norwegian society's central register of persons who are or have been resident in the country or have another form of connection to the country. The information in the register is used for public administration, research,

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[1] The Norwegian term 'folkeregisteret' or 'Folkeregisteret' has a meaning that easily get lost in translations into English. The translation 'the National Population Register (NPR)', where "national" is included, is meant to keep some of connotations given by the Norwegian term. The point is that the NPR is neither "any" population register nor simply a civil register with a few additions. Like the Norwegian term, NPR may refer to the physical register (system), the virtual (legal) register, the NPR organisation (within the host agency), and the NPR as a public authority.

[2] This term is preferred to avoid the technical aspects of the term "address". Residents in Norway shall be registered with a detailed, standardised address, while the address information in a country of next resident (if any information exists), is less structured.

statistics production, and to meet basic social needs. The development of society, including the increase in people's mobility in Norway and across national borders, places increasing demands on efforts to ensure the most up-to-date and correct NPR."

III.   Comprehensive modernisation of the NPR system 2016-

9. In 2011, a discussion on how a modernised NPR should be started. A new Act of National Population Registration came into effect in 2017[3]. At the same time, the Tax Administration, and thereby the NPR organisation, was radically reorganised. Step by step, new technical solutions for NPR were developed, and in October 2020, the new system (called Freg) took over after the CPR. Freg produced and submitted CPR-like transactions until September 2022. After that, the users had to "listen" to the changes in Freg and "harvest" the data themselves.

10. The following is an overview of the most significant changes happening as a direct result of – or at the same time as – the modernisation project:

- The five Tax (and NPR) Regions were abolished.
  - o NPR work is carried out on fewer premises (not more than one for each area), fostering specialisation and professionalism. A dedicated department and management team within the Tax Administration for NPR affairs was established.
- From paper-based to electronic case processing
  - o A database and a system for electronic case processing were set up in addition to the Register (the "Register" is the core of the NPR system).
  - o From manual to automatic case processing (i.e. by "robots") whenever possible and practical
- The legislation was adapted to a new digital reality.
- Seamless and immediate communication between NPR and the data-producing agencies and institutions
  - o Information flows that once took a week or longer now take seconds (applies to e.g. births and deaths).
- Other relevant public agencies got a formal role as producers of NPR data.
  - o Clear division of responsibility between the NPR and other public agencies and institutions
  - o Responsibility is outsourced from NPR when possible and practical.
  - o It is possible to refer to an *extended* NPR system with more than one agency.
- A new solution for communicating data from the NPR to its users
  - o More users than before are directly connected (not indirectly via a distributor).
- An increasing number of cases where sector legislation refers to the NPR as the authoritative source for core population data, among them place of residence
- Stronger duty for the public NPR users to report errors found in NPR data
- Different kinds of quality work are given more attention in the NPR.
- GDPR

11. In 2023, a central person in the NPR commented, "More has happened in the last five years than it has in the last 50 years combined!"

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[3] In Norwegian: https://lovdata.no/dokument/NL/lov/2016-12-09-88?q=folkeregistrering

IV.   Emigration registration as it is supposed to work

12. No one imagines that national population registration can be carried out without any errors or other quality issues. Dealing with these is an intrinsic part of an NPR. However, for editorial reasons, the presentation will start with emigration registration as it is meant to be, without any issues. Then, the next chapter will deal with the difficulties and the cases inconsistent with this initial model of perfection.

13. Notice that the considerations about what is ideal are based on the NPR legislation. Whether this situation is ideal for all NPR users is another matter that will be touched upon in Chapter VII.

14. «To de-register» is sometimes used as a synonym for "registering as emigrated". That is OK if, by 'registered', one thinks of being a resident. If, however, one has the entire register in mind, "de-register" would be misleading since no one is deleted. What happens is that their status is changed from 'resident' to 'emigrated'.

A.   The two normal sources for registration of emigration

15. In Norway, those who move house must notify the NPR of their new address. This duty implies that for registration of emigration, the migrants themselves (the "citizens" or the "inhabitants") are a primary source of information. The second source is the national population registers in the other Nordic countries. It makes up 30-50 per cent of the two sources combined.

16. Historically, these normal sources have dominated as sources for registration of emigration events, but recently, they have not made up much more than half of all emigrations.

B.   Source 1: The migrants themselves

1.   Step 1: The duty to notify

17. The law stipulates, "Anyone who moves to a country outside the Nordic countries to settle there or stay there for at least six months must report this to the [NPR] before departure. Notification concerning moving to another Nordic country is regulated by the Agreement of 1 November 2004 no. 41 between Denmark, Finland, Iceland, Norway, and Sweden on national population registration."

18. A move to a Nordic country shall not be reported to Norwegian authorities but to the NPR of the receiving country.

(a) The new emigration portal

19. Until recently, the way to notify an emigration was to download a PDF form, fill it out, and submit it (including possible attachments) electronically or on paper to the NPR. On 4 March 2024, however, a digital form was launched as the standard notification tool. The solution is easier to use for the notifier, and for the NPR, the received data are adapted for electronic case processing. The portal points towards a possible future introduction of automatic case processing of emigration notifications (at least the simplest ones).

20. Nowadays, people are used to and expect relatively advanced digital portals, so it was not a surprise that the pilot[4] introduced in May 2023 was well received by the public. However, the NPR's expectations about the effects were far exceeded, as the pilot caused the number of emigration notifications to increase by as much as 50 per cent! Preliminary analyses indicate that most of the increase consisted of stays abroad that were planned to be relatively short.

21. It should be kept in mind, however, that some of the extra notifications may belong to notification categories that are relatively often rejected (see below about "Step 2").

22. It is too early for SSB to study the effects of the emigration portal, but it will be done as soon as the observation period is long enough. A question we have is whether the extra notifications, first and foremost, are stays abroad that previously were not detected or if, in the future, the percentage of self-reported emigration will be higher at the expense of the administratively registered emigrations.

2. Step 2: The NPR decides if the notification meets the conditions for registration as emigration

23. Based on the information received, the NPR authorities decide whether the migrant should be registered as emigrated from Norway.

24. The main principle for handling an emigration case is that a person will not be classed as emigrated if they maintains a clear connection to Norway. Emphasis will be given to whether the person has an independent dwelling in the next country of residence, does not have a dwelling in Norway, does not have a work-related connection to Norway, does not have a spouse and/or children in Norway and does not have more than sporadic stays in Norway during a year. The length of stay is also significant but is not specified. How short stays (longer than 6 months) the NPR has accepted has varied somewhat over the years.

25. In short, the connection to Norway and the connection to the country of immigration are weighed against each other, and the result of this assessment leads to the decision. If the connection to Norway is considered the strongest, the notification is rejected, and the residence status remains 'Resident'.

26. From a statistical point of view, at least two considerations make the rules stricter than ideal: the wish to 1) keep families together as economic units and thereby avoid tax evasion and 2) reduce difficulties for Norwegian students abroad by continuing their status as resident in Norway.

C. Source 2: Notification from a Nordic NPR

27. The Nordic agreement on national population registration regulates the registration of migration between the Nordic countries. Apart from rationalising national population registration, it ensures that each inhabitant is continuously registered as a resident in one country within the Nordic region. No intra-Nordic migrant should, not even for a short period, be without a registered residence in a Nordic country, and no one should be registered as resident in two countries simultaneously.

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[4] The pilot solution could be used by a majority of the emigrants.

28. When the migrant has notified the NPR of the receiving country and the person is accepted as an immigrant there, information is sent back to the migrant-sending country. In that country's NPR, the person's status is (mainly) automatically changed from 'resident' to 'emigrated'. The official date of immigration in the receiving country is used as the emigration date in the sending country's register.

V. When people do not comply with the duty to notify a stay abroad

29. Administrative systems are not perfect. Technical or human errors are made. In registers, necessary data may be missing. And last but not least, the citizens do not necessarily notify the NPR when moving house.

30. For these reasons, an NPR must devote some of its resources to detecting and repairing errors and other quality issues. In the Norwegian NPR, most of this activity is labelled "control work". This work is not limited to issues related to 'place of residence', but these issues make up a substantial part of the efforts. Here, we will focus on the control work relevant to the quality of emigration registration.

31. Ensuring that individuals who have moved to other countries are no longer registered as residents in Norway remains a pivotal responsibility for the NPR authorities (Stortinget, 2019).

(b) The scale of administrative emigration

32. Judged by the percentage of emigration events with an unknown country of next residence, administrative emigration was once an exception. However, a few years into this century, the proportion of administrative emigrations increased yearly. In 2003, the percentage was around 15; ten years later, it had increased to 35.

33. In 2019, mass media revealed that the NPR, by accident, had emigrated some homeless people, and the control measures were cancelled until they had made enough improvements to continue. Therefore, administrative emigrations dropped from 11 800 to 6 300[5]. The NPR managed to emigrate some of them before the pandemic started in March 2020, disturbing the work again. From 2020, the percentage of administrative emigration has been 40-50 per cent.

D. Some changes in the control work since one or two decades ago

34. As an indication of erroneous addresses, returned post were once the most significant source for the emigrating of people administratively. Then, a few years into this century, the most common source became information on expired residence permits received from the Norwegian Directorate of Immigration (UDI)[6].

35. When, in 2009, the fast-increasing group of non-Nordic EU citizens no longer needed a residence permit, the challenges to maintaining the NPR's quality increased substantially.

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[5] See SSBs response in the box named "Artificially emigration count in 2019" at the bottom of this article:
https://www.ssb.no/en/befolkning/artikler-og-publikasjoner/population-growth-at-39-400-in-2019
[6] At that time the Norwegian and Nordic citizens were the only ones who did not need a residence permit. The Nordic citizens did not cause problems since most of them returned to their homeland where their migration was captured thanks to the Nordic agreement.

36. Soon after, legislation, signs-of-life methods and routines were developed. In that way, even those who did not need a time-limited residence permit could potentially be covered by the administrative emigration measures. Among the developments was the use of an existing variable and value for "without a permanent place of residence" (meant initially for homelessness) as a "waiting room" before possible emigration two years later (see more about that below).

37. Postal returns continued to play a role in the control work, but gradually, it had to rely more on the newly developed methods.

(c) More recent developments as a result of the modernisation

38. The new NPR legislation stipulated a new division of responsibility within the broader NPR system, which means that the UDI now handles expired residence permits and sends lists of those who should be emigrated to NPR. The NPR is no longer an authority in these cases.

39. Before, control work was conducted (not fully coordinated) in each of the five tax regions, but with the new centralised organisation, a specialised unit responsible for the control work in the entire country was established.

40. The new IT solutions are another positive change, even for that unit. A system for electronic case processing makes the work a lot easier.

E.   More about the control work regarding place of residence

41. In a legal context, a "discrepancy" refers to a difference or inconsistency between two or more pieces of information. A discrepancy doesn't necessarily imply an error has been made or that someone is at fault. However, it can raise questions or suspicions needing further clarification.

42. All cases concerning a person's place of residence commence with an indication that the residential address registered in the NPR does not align with the person's actual residence. This indication needs to be relatively recent to be useful.

43. The NPR may have detected discrepancies through its activities, or more commonly, the discrepancies are reported as tips from external sources such as private individuals, public agencies, institutions, or businesses. Public users of the NPR are obliged to report when their information differs from what is recorded in the NPR. For further details about tips, refer to: https://www.skatteetaten.no/en/person/national-registry/discrepancies-population-register/.

44. One can distinguish between ad-hoc tips and planned information sent regularly. There is at least one submission of the latter type, namely the monthly lists from SSB (further details below).

45. The discrepancies are checked. Writing to the individual not found at the registered address or to the property owner serves both as a legal obligation to the individual (in compliance with the Public Administration Act) and as a means of gathering information for the case.

46. The following is how section 11-2 in the NPR Act deals with the control of residential addresses:

47. "If the NPR authority suspects that a registered address of residence is incorrect or that a stated address of residence in the notification is incorrect, it may a) request a more detailed explanation from the person concerned, even about their residence, b) obtain information from a homeowner or landlord about who lives or stays at the property c) obtain information

from postal providers, e-com providers, network companies and electricity suppliers about the person concerned's customer relationship.

48. To detect errors in the registration of residence, the NPR can obtain information from postal providers about registered persons for electronic comparison with the information in the register".

49. Depending on the findings or feedback, the NPR authority may make an administrative decision on the person's status. If no response is received within two weeks following the expiration of the appeal period, the decision is effectuated, which means that the NPR is changed according to the decision.

(d)   When no one has any idea of where the person has gone

50. Without any information about a person's whereabouts, the "Unknown Place of Residence" (UPR) status will be assigned. "UPR" implies that the address below the municipal level is deleted, but the person remains a resident of Norway[7].

51. Usually, a person in Norway will become aware of the missing address and contact the NPR, where the residential address will be corrected. If, however, 2 years have passed *without* any reaction from the person, the NPR control work unit performs checks again, and if nothing new happens, the person will be registered as emigrated.

(e)   The available information says that the person has left Norway

52. Another type of person-address inconsistency is when the received information indicates with enough certainty that the person no longer stays in Norway. One example is when a house owner knows a former tenant has left the country. In such cases, the person is emigrated directly without a two-year wait.

F.   Lists of people with discrepancies produced by SSB

53. In 2013, probably inspired by the EU project Blue-Ets[8], a data processing agreement was made between the NPR and SSB. Once a month, SSB should deliver lists of predefined discrepancies identified in the data received from the NPR.

54. The lists contain different kinds of inconsistent, missing or unreliable data. Some apply to, e.g., marital status information and the reference to the spouse or other data that is irrelevant to the quality of the place of residence information.

55. However, at least one list is beneficial for the latter purpose: A list of unnaturally big households (considered the dwelling size). This list is, in fact, among the most important tips sources for the NPR. NPR starts the process by asking the owner of the overpopulated dwelling who is living there in reality. The persons who are no longer residents are investigated further, and usually, the result is that they are flagged as UPR.

56. At the end of 2023, the control work unit hinted that from now on, they would be able and prefer to be self-sufficient – while SSB, for its part, indicated this particular cooperation had run its course. Recently, know-how has been transferred from SSB to NPR, and the development work is underway this spring.

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[7] The status UPR was introduced in Freg. Unklike its predecessor in the old CPR (i.e. "without a permanent place of residence"), UPR is dedicated to the control work.
[8] https://cordis.europa.eu/project/id/244767/reporting

G.   Control measures in practice

57. Each autumn, a plan is made for the activity of the coming year. In that plan, the different control measures are outlined. They vary a lot in size and other characteristics. Each control measure can be seen as a package of definitions, justification, assessments of the effects, the method, schedule, use of resources, etc.

58. No control measure aims to reach a broad and weakly specified target group – like a blind "scanning" of the population. That would be too costly regarding the use of resources and the bothering of many people who have everything in order. Besides, it would not be acceptable otherwise.

59. Instead, each proposal for a control measure goes through an analysis to ensure that the measure is cost-effective and only those passing that test are implemented. There is no check that these pointed measures will cover all population groups one may think of as problematic in terms of the quality of place of residence. However, there is reason to believe that if someone is not covered by one particular measure, another measure will capture that case.

H.   Three control measures leading directly to administrative emigration

60. There are three control measures designed particularly for identifying and emigrating those who have not complied with the duty to notify their move from Norway:

3.   1) A yearly clean-up of the non-Nordic EEA citizens

61. An extract is made based on criteria that may change from year to year. In 2023, the criteria were as follows:

- EEA citizens from outside the Nordic countries who have lived at the same address in Norway for the last 3 years
- Between 26 and 70 years old
- Not married to a Norwegian citizen
- Does not have joint children with a partner who is a Norwegian citizen
- Does not have a cohabitant with common children where the cohabitant has an income
- No income in 2021 over NOK 100,000 (according to the tax return)
- No income in 2022 over approx. NOK 10,000 (according to a reporting system for wages and jobs)
- Does not own a home in Norway
- Does not have a spouse who has income in 2022
- Has not received social benefits or housing benefits in the last 2 years
- Does not have an active company in Norway (i.e. with turnover)

62. Those who meet all these criteria will be notified about the decision to emigrate them. If there is no response or substantiated settlement in Norway, they will be registered as having emigrated. In 2023, approx. 5,000 people were registered as emigrated this way.

4.   2) A yearly clean-up of people without a known place of residence for at least 2 years

63. Note that this measure represents the last step in a course that started with tips or other control measures that did not necessarily suspect a non-reported emigration. Several

measures may, therefore, have the same eventual effect as those meant to lead to direct emigration.

64. Apart from being UPR for more than two years and not included in any of the other two measures, the criteria for the extract are these:

- Has income above 1G (≈ a 6th or 7th of median income in Norway) in the previous year
- Has business income in the previous year
- Owns property in Norway
- Runs a Norwegian company
- In addition, separate assessments are made for children without parents on the same control measure list and people who receive various benefits from the Norwegian Welfare and Labour Administration.
- Assessments are also made against the previous case history, if applicable.

65. The persons are emigrated after the same process as in the measure above. In 2023, that applied to just under 500 people.

5. 3) Monthly lists from the UDI of residents with expired residence permits

66. Since only third-country nationals need a residence permit, this measure applies solely to them. For the entire year, the monthly lists contain approximately 2,400 people still registered as residents but no longer have valid residence permits. The numbers vary somewhat during the year. In this measure, the expired residence permit is not just an "indication" of non-residence since the law simply does not allow this category to be registered as a resident in Norway.

67. Even when the NPR was responsible for this control measure, it could take some time from the expiry date to the decision on the eventual emigration. However, the lists now arrive 6-7 months after expiration. The UDI possibly put more effort into preventing incorrect emigration registrations than the NPR once did.

68. Around half of the non-EEA citizens in Norway usually have a *permanent* residence permit. Since these people must have stayed in Norway for some years, they may be more settled, which will consequently cause fewer non-reported emigration events from them. In any case, only the general control measures may capture this category.

6. Another control measure with relevance to emigration: The administrative survivors

69. After a hint from SSB, a control measure directed towards the so-called administrative survivors will be implemented in 2024. The administrative survivors are those who get older and older since neither their possible death in Norway nor their move abroad was registered in the NPR when many years ago the event occurred. Unfortunately, the number of these people has been allowed to grow in recent years, and there are now 30-40 people above a natural age in Norway. The NPR must check if any of them once could have died in Norway, but probably all of them will be emigrated.

I.   Statistics and analyses about the source of emigration

70. The data's most accessible emigration source to identify is 'Nordic NPR' since a recorded Nordic country of next residence (back to the 1950s) always implies that source. *Unknown* country of next residence indicates (however, with less accuracy) an administrative emigration.

71. Since 2011, the NPR has registered whether the source of the emigration was a Notification or Decision.

72. Then, in Freg's new case processing system, the emigration source variable distinguishes between 'inhabitant', 'Nordic NPR', 'UDI', 'NPR authorities' and 'bulk handling [by the NPR]'[9]. The latter category includes the two control measures for EEA citizens and persons who have been UPR for two years.

73. The pandemic created anomalies in migration patterns and their registration. Freg was new in that period and is still under development. SSB's experience with some of the new Freg variables is short. For these reasons and others, it is too early to exploit the new 'source of emigration' variable in statistics and analyses.

Figure 1. Source of emigration registration. 2023
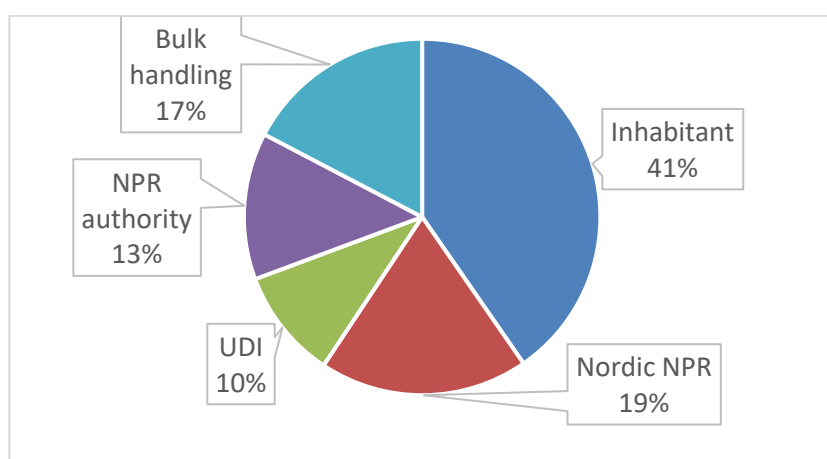
Source: Statistics Norway

J.   An epilogue about the clean-up of EEA citizens

74. In February 2024, a legal unit in the Tax Administration stopped the EEA citizen control measure (as planned for 2024). As an automatic measure, it does not comply with GDPR if the detected people's residence has not been unknown for two years before the decision to emigrate them.

75. Currently, the alternatives are discussed. One possible outcome is to continue the measure but let UPR and not emigration be the immediate effect. Assuming that the number of detected cases will continue to be 5,000 a year, with this outcome, the over-coverage will increase by 5,000 in 2024 and 5,000 more in 2025 before stabilising at 10,000 higher than today.

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[9] Their respective extraction and effectuating dates can distinguish the two bulk-handling control measures.

76. It should be noted that those detected by this measure probably already have been abroad for two years since the income criteria indicate that, and consequently, their position as "dead souls" in the Norwegian population in future may last as long as four years.

VI.   Consequences for the quality of the NPR

K.   The emigration events are eventually detected, but the data quality is harmed

77. Since the users of NPR data receive information on emigration events after a substantial proportion of them have been decided administratively, an impulsive reaction would be to blame the control work for the lower data quality of these emigrations. That would, of course, be a short circuit since the root cause is non-compliance with the duty to notify of a move abroad. Administrative emigration can be compared to a necessary medicine that, unfortunately, has some adverse effects that the patient must accept. These effects affect the quality of the emigration data and the quality of data on the resident population.

78. What characterises administrative emigration events is that their recording is delayed – sometimes a lot – and that some information about the emigration is unknown to those who do the recording.

79. Administrative emigrations usually have three problems with time: 1) The certainty of all emigration events being discovered sooner or later is a meagre consolation for most users. It may take a long time before detection, and the long delay causes different unfortunate issues. Then, 2) the event's official date is often far from reality. Finally, 3) the distribution of these dates over the calendar year may be uneven, which is a challenge for reference periods that are shorter than a year.

80. Later event dates than reality means that the stay in Norway will be measured as longer than they were in reality, and the emigration age will be higher than the real age. These prolongings and the low accuracy of the emigration dates have the relatively most significant consequences for the shortest stays.

L.   Missing country of next residence

81. If the source of an administrative decision is the expired residence permit or UPR, it is impossible to know where the person has gone. However, when the source is a tip, information on the country of the next residence may occasionally be included in the received information. Anyway, after the control measures are finished, the result is a substantial number of missing entries for the country of the next residence in the data.

82. For most of the 1990s, the percentage of unknown country of next residence in Norwegian emigration statistics was around 5 per cent. Then, in 2003, the figure suddenly jumped to 13 per cent – increasing to 27 per cent in 2009 and 34 per cent in 2013. After that, several yearly percentages have been at this relatively high level. The highest percentage of unknown country of next residence was seen in 2021, with 48 per cent.

M.   Continuing but relatively stable over-coverage in the population

83. As long as a person's emigration remains unrecorded, the absence from the country causes a preliminary over-coverage in the population. In the answer to the Storting in 2019, the Minister of Finance explained the consequences of over-coverage (Stortinget, 2019). Interestingly, the answer refers thoroughly to the *statistical* consequences:

84. "Failure to register the emigration will have several consequences and may cause problems for actors, based on information from the NPR. Persons who do not reside in the country may unlawfully occupy places in the GP or contribute to the abuse of rights schemes. Furthermore, SSB's employment shares, educational frequencies, etc., will not be correct. Population projections will also be affected by this. These consequences will affect SSB's analyses and decision basis, so this will not be as high quality as it should."

VII.   SSB's coping with the quality of the emigration data

85. For a user like SSB, the primary challenge in recent years has revolved around the technical adaptation to Freg. While some changes have presented difficulties for all users, SSB faces unique needs and priorities that differ from typical administrative agencies.

86. Nevertheless, potential advancements in statistics and alterations to production principles must await the implementation of a new IT infrastructure for SSB.

87. Despite this, former papers from 2012 and 2014 (Vassenden) continue to provide a reasonably comprehensive overview of SSB's situation and its population statistics, particularly concerning the handling of NPR data. Here, we highlight two issues:

N.   Over-coverage from the perspective of SSB

88. This working paper has delineated NPR's endeavours to mitigate over-coverage in the population, which is pivotal for maintaining the quality of SSB's population statistics. NPR's application of signs-of-life methods addresses tasks typically undertaken by National Statistical Institutes in numerous other countries.

89. Nonetheless, SSB's over-coverage concept encompasses categories not covered by NPR's control work. In such instances, the term "unreported emigration" lacks precision, as individuals may have notified NPR of their emigration but have yet to acquire the registered status of 'emigrated'. However, when used by SSB, the term "unreported emigration" should not be construed as a legal designation but rather as an easily comprehensible expression.

90. Additionally, from SSB's vantage point, it seems unnatural to retain individuals who have likely left the country within the resident population for an additional two years, as NPR may need to do in some instances.

91. These clarifications imply that, for SSB, over-coverage encompasses certain categories that will never be officially registered as emigrated due to legislative constraints and those under scrutiny by NPR but not yet classified as such.

92. Nevertheless, it is convenient for SSB (and, in many ways, the principally right thing to do) to allow NPR to define demographic events and the resident population operationally. This enables SSB to focus on transforming data into statistics and enhancing the quality of specific variables.

93. SSB's alternative to mirroring NPR involves establishing and managing a data correction system based on signs-of-life methods. However, this approach would not yield flawless data.

94. Thus far, SSB has deemed that the benefits of directly utilising NPR outweigh the drawbacks of including additional over-coverage cases within the resident population. SSB has not contemplated removing individuals from the resident population, as some other National Statistical Institutes may do. However, the future assessment of this issue remains subject to further consideration.

95. In response to the desire for a greater understanding of over-coverage, SSB conducted a study in 2023 (Krokedal, Nergård, and Kvalø, 2024). Among the findings, over-coverage in the population aged 15 years or older was estimated at 0.44 per cent or 20,000 individuals.

O. How long wait before extraction of data

96. The current practice for producing Norwegian population statistics is to extract data one month after the reference period/time ends.

97. Due to the electronic data communication introduced in Freg, most births and deaths are now registered in the NPR within a couple of days(!). The improvements in timeliness for these two population growth factors have been sensational.

98. The international migration events, however, have not seen the same improvements. The new emigration portal may contribute positively, and the same may happen for the forthcoming immigration portal. Still, it looks as if a one-month wait will continue to be necessary primarily because of the delayed emigration events[10]. This dilemma will have to be examined and discussed.

VIII. Conclusions

99. Reflecting on the past decade, SSB perceives a period marked by prolonged stability, albeit with recent challenges and transitions. Similarly, the control work conducted by the NPR has undergone significant development over the past ten years.

100. In the working paper of 2014, we concluded that "It should be possible to get more migrants to give notification of their migration themselves". A decade later, with the introduction of the emigration portal, the NPR has taken practical steps to encourage more migrants to notify their emigration.

101. Another consideration in 2014 was the prospect of greater internationalisation of administrative systems, such as the exchange of national insurance information within the EU/EEA. However, the NPR has had little to report on regarding relevant developments in this field.

102. The 2014 working paper discussed population over-coverage, indicating SSB as the only concerned party. A decade later, that statement appears outdated as more attention is now directed towards the over-coverage issue by other NPR users. This shift may be attributed to the NPR's strengthened position as a common infrastructure component in Norwegian

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[10] However, even some other demographic variables may profit from a on-month wait.

society, with more users directly connected to Freg and utilising NPR's population definitions.

103. One objective of the new NPR Act was to enhance data exchange between NPR and other public agencies. However, the potential impact of GDPR on this aim raises questions. A few news reports suggest that GDPR pose challenges for Norwegian public administration, manifested, for example, in a tension between legal considerations and the need for an effective NPR reflecting reality.

104. SSB finds some developments from the NPR control work concerning, whereas others are promising. The future will reveal whether these developments will influence the production of population statistics.

Abbreviations and explanations

Freg   Name of the NPR as technical system
NPR   National Population Register
SSB   Statistisk sentralbyrå / Statistics Norway
Stortinget The Norwegian parliament
UPR   Unknown place of residence
UDI   Utlendingsdirektoratet / The Norwegian Directorate of Immigration

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