Evaluation of a set of survey protocols for marbled murrelets

Report prepared for

The Pacific Seabird Group marbled murrelet
Inland Survey Protocol statistical subcommittee

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Executive summary

We describe a statistical analysis of marbled murrelet survey data and the evaluation of a set of survey protocols to inform the formulation of a new inland survey protocol.

This report expands on the work of MacKenzie (2016) in several ways:

1. The occupancy model includes a possible change in occupancy status between the two years of the survey. This addition was suggested by MacKenzie (2016) and others.
2. The occupancy model includes presence detections as a possible outcome of a survey visit (Baldwin, 2018).
3. The set of possible survey protocols includes a threshold number of visits with presence detections beyond which an Area is classified as occupied (Baldwin, 2018).
4. The set of performance measures have been expanded to consider false positives (due to the use of presence detections in Area occupancy classification) and to consider the probability of Area occupancy (Baldwin, 2018).
5. Estimates of occupancy model parameters were obtained in a Bayesian framework, and uncertainties were carried through to the calculation of performance measures. This contrasts MacKenzie's (2016) approach which was based on *reasonable values* for parameters.

Several scenarios representing Areas of differing size and assumptions regarding the coverage of survey stations were examined. For each scenario, a set of survey protocols were applied that varied the number of survey visits in each of two years and the number of visits with presence detections required to categorize an Area as occupied. Two performance measures – the False Omission Rate (FOR) and the False Discovery Rate (FDR) – were used to evaluate the performance of the different protocols for each scenario. The FOR is the probability that an Area is occupied given that it was classified as unoccupied, and the FDR is the probability that an Area is not occupied given that it was classified as occupied. We include tabular and graphical summaries of the trade-off between protocol design, sampling effort, and both the FOR and FDR.

A stated goal of this work was to consider Areas larger than a current-protocol Site. However, due to a lack of information regarding which Sites belong to the same Area in the existing data, we are relying on an assumption of independence in occupancy status among Sites in the same Area to evaluate candidate protocols in these larger Areas. Given that there is some evidence of dependence among Sites in the same Area with respect to occupancy status, we are not confident in the estimates of performance for large Areas that assume independence. For a given protocol, dependence among sites will lead to a FOR that is below the target, and a FDR that is above the target.

We encourage future protocol surveys to collect and report information that will allow issues of spatial dependence and missing data (due to stopping at occupancy detection or otherwise) to be properly incorporated into future statistical analysis. Station sampling should be done according to typical spatial sampling procedures. A complete recording of Station locations, both sampled and unsampled, should be retained to evaluate future updates to the protocol. This includes both the locations and times of sampling, for survey visits that occurred and survey visits that did not.

Introduction

This report describes the work undertaken by the authors in collaboration with the Pacific Seabird Group (PSG) marbled murrelet (MAMU) Inland Survey Protocol (ISP) statistical subcommittee. The overarching objective as we see it is to provide the best possible evidence-based advice to the PSG's-ISP Working Group of the Marbled Murrelet Technical Committee for their revision of the MAMU survey protocol, subject to various constraints. We endeavor to present the set of assumptions underlying the work so that the results can be used appropriately to guide the protocol revision.

A simplified summary of the current (ca. 2003) protocol as practiced is as follows (Evans Mack et al, 2003):

- An area of interest that is the subject of an upcoming management action is defined. Potential MAMU habitat in the vicinity of the area of interest is determined. The survey area (*Area*) is the potential habitat within the area of interest in addition to the potential habitat within one-quarter mile (402m) of the boundary of the area of interest.
- Under the 2003 protocol "[a]n occupied site is where murrelets have been observed exhibiting subcanopy behaviors, which are behaviors that occur at or below the forest canopy and that strongly indicate that the site has some importance for breeding"; occupied sites also include nest sites. Observation of a single "occupied" behavior results in the Area being classified as occupied (Evans-Mack et al. 2003).
- The Area is subdivided into *Sites* that are no larger than about 150 acres (61 ha).
- Survey *Stations* are locations at which survey observations take place. They are chosen to provide coverage of the Site under an assumption of maximum detection distance of 200m from each Station. This typically results in 5 or 6 Stations per Site.
- Site visits are made for up to two years. If at any point an occupied detection is made, the Area is determined to be occupied and survey visits stop. The number of visits described below are minimum numbers of visits.
    - In the first year, a minimum of five Site visits are made to distinct Stations, if possible. If MAMU are observed to be present but not observed to be occupying the Site (presence detection), then additional visits are made to the Site to a total of nine visits.
    - In the second year, an additional five Site visits are made. If a presence detection was made in the first year or during the first five Site visits in the second year, then additional visits are made to the Site to a total of nine visits.

Herein we describe: (1) the analysis of data collected during MAMU surveys performed under the current protocol in order to estimate quantities of interest and their uncertainties; and (2) the evaluation of a set of candidate protocols using these estimates. Candidate protocols are evaluated using a set of performance metrics that quantify expected error rates were a given protocol implemented.

Discussions with the statistical subcommittee, and consultation with the full ISP Working Group, have resulted in the following baseline requirements for an updated protocol:

1. Evaluation and execution of the protocol should be done at the Area scale, not the Site scale.

2. The protocol surveys will be conducted over two years. An Area is defined to be occupied if it is occupied in at least one of the two years. This implies that the occupancy status of an Area can change from year one to year two.
3. Station spatial density should reflect an effective radius of 100m for detecting "occupied" behaviors; rather than the 200m radius used in the 2003 protocol. As a result, there will be four times the number of Stations per unit of area compared to the 2003 protocol.
4. Station sampling should be done according to typical spatial sampling procedures. A complete recording of Station locations, both sampled and unsampled, should be retained to evaluate future updates to the protocol.

Data

Records of MAMU surveys conducted in Oregon and Washington state since 2003 were obtained from Kim Nelson at Oregon State University, and include Washington records provided by the Washington Department of Fish and Wildlife from their database, Oregon records provided by Oregon Department of Forestry, and records from an Oregon database assembled by Kim Nelson and others for surveys on federally-managed lands and other ownerships. California had many fewer protocol-level surveys since 2003 than did Oregon or Washington, and no database existed for California surveys since 2003, thus California data were not included. These are the same data provided to MacKenzie (2016). The data contain a unique Site identifier and Station identifier for each survey visit, but no Area identifier. As described in MacKenzie (2016), many fields have a high proportion of missing values, especially those related to environmental conditions at the time of the survey sample and whether the protocol was followed.

We restricted analysis to records from those Sites that had surveys in the year 2003 or later, except those Sites that had surveys in years prior to 2003 and whose final survey was in 2003. This restriction was intended to exclude Sites that were surveyed according to the pre-2003 protocol. Only data from 2003-2014 were used in analysis. This resulted in 29,631 unique survey visits at 10,453 Stations in 3,170 Sites. We categorized the possible outcomes of a survey visit to a Station as follows:

1. No detection
2. Presence-only detection (from the PresenceDet data field)
3. Occupied detection (from the OccupiedDet or CirclingDet field)

We defined circling behavior to be an occupied detection, in contrast to MacKenzie (2016) who excluded circling from their analysis. This reflects decisions by the full ISP Working Group in 2018-19 to treat most circling as "occupied" behaviors in the new protocol.

Framework

Our objective is to evaluate a set of candidate protocols against one or more performance measures in order to determine which protocols in the set are expected to achieve performance targets. Figure 1 sketches the workflow. In order to select one or more protocols for recommendation, several inputs are required:

1. A set of candidate protocols to consider.
2. One or more performance measures.
3. For each performance measure, a criterion that defines acceptable performance.

4. Data collected during previous surveys.

In addition, a series of assumptions are required to define the occupancy model to be estimated from the existing data and the simulation of surveys under candidate protocols.

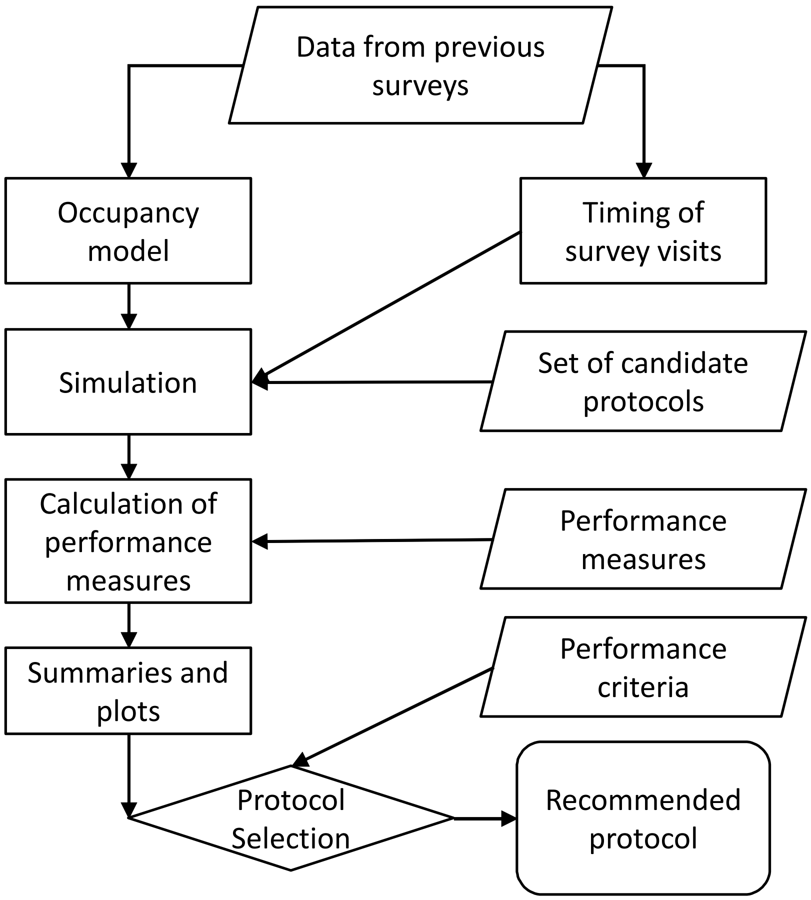

Figure 1: The framework for quantitative evaluation of candidate protocols. This report contains results for all components except for Protocol Selection, Performance criteria, and Recommended protocol.

Estimation of occupancy model parameters

As indicated in Figure 1, the evaluation of candidate protocols relies on the specification and fitting of an occupancy model in order to describe the data-generating process. A simplified version of the multi-scale occupancy model originally used by McKenzie (2016) is:

$$\begin{aligned} Z_i &\sim \text{Bern}(\Psi) \\ V_{ij} &\sim \text{Bern}(\theta Z_{ij}), \\ Y_{ijk} &\sim \text{Bern}(p_{ij} V_{ij}) \end{aligned}$$

where Z is the occupancy status of a Site, V is the occupancy status of a Station, Y are the data (was occupancy detected or not?), i is the Site, j is the Station, and k is the visit. This basic model set-up allows for differences in occupancy status among Stations within an occupied Site (sometimes referred to as "heterogeneity among survey stations"). Under consultation with the statistical subcommittee, we modified the model to include features that were believed to be important in describing MAMU occurrence and detection during protocol survey visits. We also modified the model to reduce complexity. These extensions were:

a. Occupancy probability Ψ differs by jurisdiction (Washington or Oregon)
b. Detection probability p is a smooth function of the day of the year at which the survey visit occurred, with an offset according to the jurisdiction
c. The occupancy state variable Z can change between the two years of the survey. The probability of a change of state depends on the jurisdiction.
d. The conditional Station-level occupancy probability θ differs by jurisdiction
e. The set of potential observations Y is expanded to include presence-only detections.

These modifications address two tasks outlined in the original Statement of Work:

1. The extension of the multi-scale model to a multi-year model.
2. The inclusion of presence detections (elsewhere called *multi-state*; Baldwin, 2018).

The full model specification is in the Appendix. We provide an overview of the extension to a multi-year model and the inclusion of presence detections next.

Extension to multi-year model

Calling t the calendar year, the state variable for the Site occupancy Z_{it} depends on the value of the Site occupancy status in the previous year in the following way:

Probability of new occupancy: $P\left(Z_{it} = 1 \middle| Z_{i,t-1} = 0\right) = \psi_{i,01}$

Probability of no new occupancy: $P\left(Z_{it} = 0 \middle| Z_{i,t-1} = 0\right) = \psi_{i,00} = 1 - \psi_{i,01}$

Probability of local extinction: $P\left(Z_{it} = 0 \middle| Z_{i,t-1} = 1\right) = \psi_{i,10}$

Probability of maintaining occupancy: $P\left(Z_{it} = 1 \middle| Z_{i,t-1} = 1\right) = \psi_{i,11} = 1 - \psi_{i,10}$

Extending this Site occupancy process out over many years, we can get the marginal or long-run probability of occupancy. It is: $P(Z_{i\cdot} = 1) = \Psi_i = \frac{\psi_{i,01}}{\psi_{i,01}+\psi_{i,10}}$,
and the complementary probability is $P(Z_{i\cdot} = 0) = 1 - \Psi_\mathrm{i}$

We define the probability of occupancy in the first year of surveying a Site to be Ψ_i, after which the conditional probabilities of occupancy are used. The Ψ_i parameters of this simple model for the underlying occupancy process vary by jurisdiction, but the probability of new occupancy ψ_{01} does not. This modeling choice was made in consultation with the statistical subcommittee with the goal of limiting the number of parameters to estimate.

Inclusion of presence detections

Including presence detections as a possible survey visit outcome allows us to evaluate protocols that classify occupancy based on these presence detections. To our knowledge, this was first suggested by Baldwin (2018), in which it was described as "multi-state". We prefer not to use this terminology, to distinguish observations (none/presence-only/occupied) from the underlying state (unoccupied/occupied).

Define U_{ijk} to be the presence observation. That is, $U_{ijk} = 1$ if presence was observed and zero otherwise. If no occupancy is detected, but the Station is occupied, then $P(U_{ijk} = 1 | V_{ij} = 1, Y_{ijk} = 0) = q_1$. If no occupancy is detected, and the Station is not occupied, then $P(U_{ijk} = 1 | V_{ij} = 0, Y_{ijk} = 0) = q_2$. The usefulness of presence detections for categorizing Site occupancy relies on a difference between these two probabilities; if there is not a difference in the probability of a presence-only observation between occupied and unoccupied Stations, then it seems unlikely that presence-only observations could be used to differentiate occupied from unoccupied Stations, and ultimately occupied from unoccupied Areas.

To complete the mathematical specification, define a new survey outcome variable W_{ijk} which takes values:

$$W_{ijk} = \begin{cases} 0 & \text{if } U_{ijk} = 0 \text{ and } Y_{ijk} = 0 \\ 1 & \text{if } U_{ijk} = 1 \text{ and } Y_{ijk} = 0 \\ 2 & \text{if } Y_{ijk} = 1 \end{cases}.$$

A model (the likelihood) for W is

$$W_{ijk} \sim \text{Categorical}\big(V_{ij}(1 - p - q_1) + (1 - V_{ij})(1 - q_2), V_{ij}q_1 + (1 - V_{ij})q_2, V_{ij}p_{ij}\big)$$

A summary table of the probabilities of different survey observations is below:

	True state of occupancy	
Observation	Occupied: $V = 1$	Unoccupied: $V = 0$
Not observed: $W = 0$	$1 - p - q_1$	$1 - q_2$
Presence only: $W = 1$	q_1	q_2
Occupancy: $W = 2$	p	0

Model parameter inference

A Bayesian paradigm was used for inference of model parameter values. Details of priors for model parameters are presented in the Appendix. The posterior distribution of model parameters is not available in closed førm, so draws were obtained from the posterior distribution using the R package *nimble* version 0.7.1 (NIMBLE, 2019), which implements a hybrid Gibbs sampler for obtaining draws using Markov Chain Monte Carlo (MCMC). We used three MCMC chains each of total length 110,000, dropping the first 10,000 samples of each to avoid including draws that had not yet converged on the target distribution. The chains were thinned by 100, resulting in 1,000 samples in each, or 3,000 total samples. Visual inspection of the chains did not suggest a lack of convergence to the target, although mixing was slow for the parameter q_2. Parameter draws used in the evaluation of candidate protocols were further thinned to 200 total samples due to computer memory limitations. We expect this to be

sufficient resolution to obtain approximate expected values and credible intervals for the performance measures.

Predictive model checking

One way to evaluate the ability of a statistical model to describe the data is to compare observed data to hypothetical data generated according to the model (Rubin, 1984; Gelman et al, 1996). However, in this case we can only partially describe the process that may have generated the observed data, because there is incomplete information about the full survey design. The protocol under which the data were generated specifies a data-dependent stopping rule. However, it can and has happened that survey visits that were planned were not in fact carried out, and the reason for this stopping is not available from the data in hand. Stopping for unknown reasons makes predictive model checking challenging because we can't specify what data should be missing.

To address this challenge, we restricted predictive model checking to those Sites in the data for which we were able to deduce the reason for stopping. In general, there was no information about which Sites were part of the same Area, so we were not able to identify stopping that occurred because of an occupancy detection at a different Site in the same Area. This results in many Sites being dropped from the model check; only 551 Sites matched the number of visits expected under the protocol according to Site occupancy detections alone (Figure 2). Using information from these 551 Sites, we generated 300 datasets from the predictive distribution of the occupancy model. We specified Sites with similar characteristics to those for which the stopping rule was evident (jurisdiction/state, day of year of visits, and median number of Stations), and applied the same protocol-specified stopping rule. The data generated using this procedure is not expected to match the observed data perfectly – for example, Sites with very few visits may tend to be over-represented in the data because occupancy detections early on at a Site will be kept but all other Sites in the same Area will be dropped. The proportion of Sites with occupancy detections and the proportion of Sites with presence detections match reasonably well with the observed proportions (Figure 3).

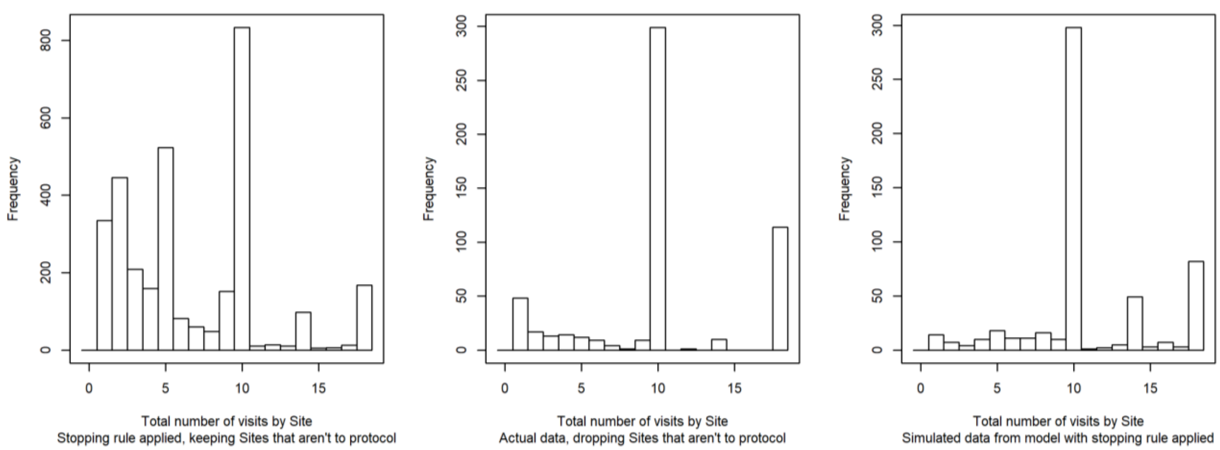

Figure 2: The distribution of the number of survey visits per Site. The left panel shows the total number of visits by Site after applying the 2003 protocol stopping rule. There are many Sites with fewer visits than would be expected. The middle panel drops Sites that were not obviously surveyed according to the protocol because they did not have an occupancy detection on the final visit, or because they did not perform enough surveys based on presence detections. The right panel is a single simulation from the

occupancy model coupled to the protocol stopping rule – model parameters were set to their expected values from the posterior distribution. The actual data appears to identify occupancy with fewer visits; this could be due to several factors such as surveys targeting the best habitat first, or surveys stopping at a Site because of an occupancy detection at another Site within the Area.

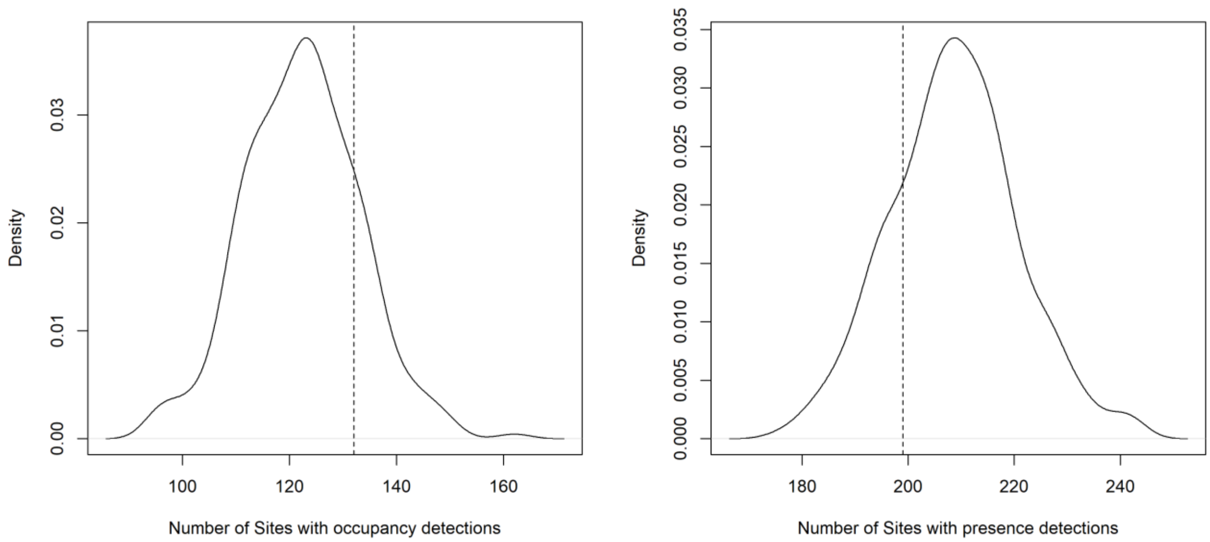

Figure 3: Posterior predictive check of the number of Sites with occupancy and presence detections. The distributions are from 300 simulated Sites drawn from the posterior predictive distribution with stopping rule applied. The vertical dashed line shows the value from the data for which the Site stopping rule was known to have matched the protocol stopping rule.

Evaluation of candidate protocols

Due to the complexities of the occupancy model arising from variation in probability of detection as a function of the day of year, variation in occupancy status, and other factors, we chose a simulation approach rather than an analytic approach to evaluate possible protocols. We simulated the true state of nature and resulting survey data for a number of Areas according to different scenarios, applied a set of survey protocols of interest, and summarized the performance of the protocols using predetermined performance measures.

Generating data from the model

We used the posterior distribution for model parameters described under *Estimation of quantities* to simulate data from hypothetical areas. Because the estimation model includes a description of the full data-generating process, we can simulate both the observations and true state of nature for the hypothetical areas, which allows us to estimate various measures that summarize the performance of each protocol in the set.

Outline of simulation

The simulation generates states of nature and observations for hypothetical MAMU survey areas as defined by a set of scenarios and survey protocols. Most of the simulation follows directly from the occupancy model. For each Area, two years are simulated. Areas were

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simulated for each jurisdiction equally (Washington and Oregon). Areas can optionally be subdivided into strata that are assumed to be occupied independently. For a given scenario and survey protocol, the simulation proceeds in five steps:

1. Generate occupancy status for each Area Stratum.
    - Depends on jurisdiction.
    - Depends on occupancy in the same Area Stratum in the previous year.
2. Generate the occupancy for each Station in each Area Stratum.
    - Depends on Area Stratum occupancy.
    - Depends on jurisdiction.
    - (Optional) Assume occupied Area Stratum has at least one occupied Station.
3. Generate sampling times.
    - In proportion to surveys in the existing data, for Sites with nine visits in a year.
4. Calculate occupancy detection probability.
    - Depends on jurisdiction.
    - Depends on sampling timing.
5. For each survey visit, generate an outcome: No MAMU detected, Presence only, or Occupied.
    - Stations are visited in random order.
    - All Stations are visited once before any Station is visited twice.
    - For stratified random sampling: Each stratum is visited once before any stratum is visited twice.

Scenarios

The scenarios define the characteristics of the Area under consideration. We considered six scenarios intended to explore the effects of Area size, Station occupancy in occupied Areas, and stratification in large Areas. The scenarios were:

1. A tiny Area with 3 Stations. Station occupancy is not assumed even if the Area is occupied. That is, it could be possible to position Stations in such a way that occupancy can't be detected, even if the Area is occupied.
2. A tiny Area with 3 Stations. At least one Station is occupied if the Area is occupied. That is, Stations provide coverage of the Area.
3. A small Area with 6 Stations. This size of Area is not uncommon, and would not have been out of place in the Areas surveyed under the current protocol.
4. An Area with 20 Stations. This size of Area is equivalent to the maximum Site size under the current protocol, about 150 acres (61ha).
5. An Area of about 450 acres (183ha), with 60 Stations, 3 Strata with independent occupancy, and simple random sampling. This and scenario 6 represent Areas substantially larger than 150 acres (61 ha), and thus requiring more survey effort than scenarios 1-4. These would be Survey Areas with multiple Sites under the 2003 protocol.
6. An Area of about 450 acres, with 60 Stations, 3 Strata with independent occupancy, and stratified sampling with sampling strata matching the underlying occupancy strata.
7. **(Additional Scenario added at the request of PSG).** An area of about 300 acres, with 40 Stations, 2 Strata with independent occupancy, and stratified sampling strata matching the underlying occupancy strata. **These results are in the appendix.**

The set of candidate protocols

Members of the set of candidate protocols can be differentiated by three attributes:

1. The amount of sampling effort applied. This is quantified as the number of Station visits per year, under the assumption that the same number of visits are to be made in each year, unless the survey is stopped due to a decision criterion being met. Because Areas of different sizes will have different numbers of Stations, the range of sampling effort considered under each scenario will differ.
2. The type of sampling to be done. In scenarios with Areas comprised of 20 or fewer Stations, this is always simple random sampling without replacement, so that all Stations are visited once in a season before any are sampled twice. In scenarios with Areas comprised of 40 or 60 Stations, this is either simple random sampling without replacement or stratified sampling of sub-Areas / strata that are 20 Stations each. Stratified sampling is also done without replacement. In addition, strata are sampled in turn (with an order that is randomly determined for each turn), so that each stratum is sampled once before any are sampled twice, each is sampled twice before any are sampled three times, and so on.
3. Occupancy determination. For all candidate protocols, a single occupancy detection on any Station visit will result in an occupancy determination for the Area. Some protocols will also use presence detections to determine occupancy, and will differ in the number of station visits with presence detections required for occupancy determination. Presence detections are recorded on a per-visit basis; multiple presence detections on a single visit to a single Station count as a single presence detection for the purposes of deciding Area occupancy.

Performance measures

We evaluated each candidate protocol in terms of four performance measures. These performance measures can be derived from the following decision table:

		Decision or claim	
		Not occupied	Occupied
True state of nature	Not occupied	True negative (TN)	False positive (FP)
	Occupied	False negative (FN)	True positive (TP)

The four performance measures are:

1. The False Negative Rate: $FNR = FN/(FN + TP)$. This measures the chance that an occupied Area is surveyed according to the protocol and is found to be unoccupied.
2. The False Positive Rate: $FPR = FP/(TN + FP)$. This measures the chance that an unoccupied Area is surveyed according to the protocol and is found to be occupied.
3. The False Omission Rate: $FOR = FN/(TN + FN)$. This measures the chance that an Area that is surveyed according to the protocol and found to be unoccupied is in fact occupied.
4. The False Discovery Rate: $FDR = FP/(FP + TP)$. The measures the chance that an Area that is surveyed according to the protocol and found to be occupied is in fact unoccupied.

The FNR and the FPR are conditional on the state of nature – they don't depend directly on the probability that a given Area is occupied. In our experience, they are not intuitive in the sense that they describe the probability of protocol decisions for given unknown states of nature, but in practice a particular Area is surveyed and a decision is made regarding occupancy. In this scenario, what is known is the outcome of the protocol and what is unknown is the state of nature, but the FNR and FPR work the other way around. Under the FNR and FPR the state of nature is treated as known and the decision is treated as uncertain. The FNR and FPR can be interpreted as rates of decisions made over many surveyed Areas, rather than a particular Area of interest. Analysis done in support of the current (2003) protocol and by McKenzie (2016) used the FNR to evaluate candidate protocols, and it was assumed that the FPR was zero in all cases because occupancy detections can only occur at occupied Stations.

The FOR and FDR are conditional on the decision made by following the protocol – they begin with a pre-survey probability of Area occupancy and update this probability in light of the decision made by following the protocol. In our experience, it is much easier to interpret these rates compared to the FNR and FPR. After the survey protocol is followed and a decision is made about occupancy, the FOR and FDR quantify the probability that the decision was incorrect. We note that these performance measures depend directly on the probability of occupancy. Consequently, the FOR and FDR of a fixed protocol will differ for populations with different underlying rates of occupancy. The statistical subcommittee agreed with our recommendation in favor of the FOR and FDR as more direct and intuitive measures of performance that address the primary quantity of interest: occupancy of the Area under survey.

Despite being intuitive, the terms False Omission Rate and False Discovery Rate are technical and do not lend themselves to lay interpretation. Helpful alternative terms are as follows:

- *The probability of occupancy* if the survey concludes no occupancy (False Omission Rate)
- *The probability of no occupancy* if the survey concludes occupancy (False Detection Rate)

Repeated simulation was used to estimate the proportion of Areas that land in each category in the decision table (TN, FP, FN, TP), while accounting for uncertainty in the model parameters. For each of 200 draws from the posterior distribution of model parameters, and for each scenario, and for each candidate protocol, either 300 or 100 Areas per jurisdiction were simulated according the scenario: Scenarios 1-4 were evaluated using 300 Areas; Scenarios 5-6 were evaluated using 100 Areas (difference due to computer memory limitations). Expected values for each of the four performance measures (FNR, FPR, FOR, FDR) were then computed as well as 50% and 90% credible intervals, equally weighting the two jurisdictions, for each scenario and candidate protocol. We also report results for each jurisdiction separately in the Appendix. We defer any recommendation of protocol to the statistical subcommittee.[1]

[1] In our discussions, the statistical subcommittee targeted a threshold for performance of a candidate survey protocol consistent with no more than a 5% probability of occupancy when a survey concludes no occupancy (FOR). Further, they decided that this performance threshold should be met with 95% confidence – that is, when considering uncertainty arising from occupancy model estimates, no more than 5% of the FOR credible region should exceed the threshold. While taking uncertainty into account is laudable, we note that tail probabilities can be challenging to quantify and should be interpreted carefully. We also emphasize that the FDR represents a potentially (continued next page…)

Results

Occupancy model

Mean values and percentiles from the posterior distribution for each parameter in the occupancy model are presented below (Table 1). For the model definition, see the Appendix.

Table 1: Occupancy model posterior probability summaries, for each parameter without reference to other parameters. The WA subscript refers to Washington and the OR subscript refers to Oregon. The 2.5% and 97.5% percentiles form a 95% credible interval for each parameter, and the 50th percentile is the median.

			Percentiles of posterior distribution				
Parameter	Short Definition	Mean	2.5%	25%	50%	75%	97.5%
Ψ_{OR}	Prob of Site occupancy: Oregon	0.266	0.244	0.258	0.266	0.274	0.289
Ψ_{WA}	Prob of Site occupancy: Washington	0.271	0.226	0.254	0.270	0.287	0.321
$\psi_{OR,10}$	Prob of local extinction: Oregon	0.106	0.065	0.090	0.105	0.120	0.152
$\psi_{WA,10}$	Prob of local extinction: Washington	0.104	0.062	0.087	0.102	0.118	0.154
ψ_{01}	Prob of new occupancy	0.038	0.024	0.033	0.038	0.043	0.053
θ_{OR}	Prob of Station occupancy given Site occupancy: Oregon	0.673	0.627	0.656	0.673	0.689	0.722
θ_{WA}	Prob of Station occupancy given Site occupancy: Washington	0.725	0.623	0.689	0.725	0.760	0.826
q_1	Prob of Presence-only detection given Station occupancy	0.273	0.257	0.267	0.272	0.278	0.289
q_2	Prob of Presence-only detection given no Station occupancy	0.016	0.013	0.015	0.015	0.016	0.018
β_{WA}	Prob of occupancy detection offset for Washington relative or Oregon	-0.304	-0.529	-0.379	-0.305	-0.228	-0.077
β_1	Coefficients of spline function on probability of occupancy detection (smooth function of day-of-year) for Oregon	-2.311	-2.965	-2.540	-2.311	-2.082	-1.683
β_2		-1.702	-2.379	-1.933	-1.696	-1.467	-1.089
β_3		-2.365	-2.993	-2.587	-2.363	-2.150	-1.729
β_4		-2.196	-2.691	-2.369	-2.192	-2.021	-1.712
β_5		-1.707	-2.125	-1.846	-1.705	-1.566	-1.300
β_6		-0.806	-1.251	-0.961	-0.806	-0.650	-0.348
β_7		-1.686	-2.262	-1.883	-1.682	-1.487	-1.087
β_8		-1.167	-1.875	-1.395	-1.162	-0.937	-0.487

The occupancy detection was modeled as a smooth function of the day of year. The posterior expected function is plotted below (Figure 4), along with 95 percent point-wise credible regions for each jurisdiction. The smooth curves are defined by the values of the β parameters.

(continued…) costly incorrect decision for resource owners, and encourage a thoughtful approach to the consideration of FDR, in particular given the tradeoff between FOR and FDR for protocols that use presence detections to classify occupancy. This report is intended to be agnostic toward a specific threshold on FOR or FDR, and the use of a 5% target in the following sections is for illustration purposes only and is not meant as a recommendation for a revised protocol.

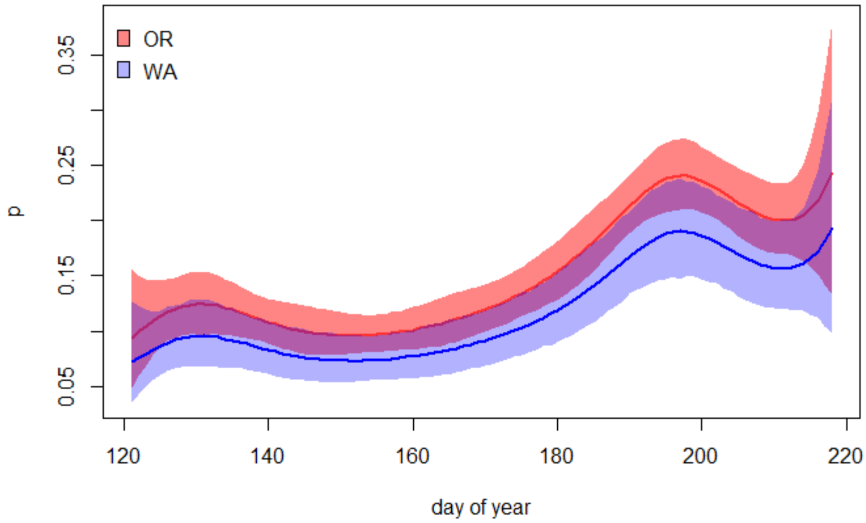

Figure 4: Posterior distribution of the detection probability p as a function of the day of year. The mean of the posterior distribution is plotted as a solid line, and shaded regions show the point-wise 95 percent credible regions for each jurisdiction.

Performance measures

Here we present results in terms of the FOR and FDR for different presence detection thresholds, number of station visits per year, and scenarios. Plotted are the expected (mean) posterior values of the measures of performance as solid lines, with pointwise 50% and 90% credible regions as darker and lighter regions, respectively. These credible regions are bounded by the 25th and 75th percentile (in the case of the 50% credible regions), and the 5th and 95th percentiles (in the case of the 90% credible regions). These performance measures are defined for the entire Area.

Comparisons of interest are:

- Performance between scenarios 1 and 2. In scenario 2, we assume that at least one Station is occupied if the Area is occupied. In scenario 1 we make no such assumption.
- Performance between scenarios 5 and 6. In scenario 5, we sample a large area using simple random sampling, whereas in scenario 6 we sample a large area using stratified sampling.
- Performance between scenarios 1, 3, 4, and 5 or 6 or 7. What is the relationship between the number of Stations in an Area (i.e. its size) and the amount of effort required to achieve defined performance criteria?
- Performance of different presence thresholds for determining occupancy, and the relationship between the threshold, the size of the Area, and the amount of survey effort required to achieve defined performance criteria.

Presence detections not used

When presence detections are not used, by assumption there can be no false occupancy determinations because occupancy can only be detected at occupied Stations. Comparing FOR across scenarios (Figure 5), there is no more than a slight difference in performance across scenarios 1-4. Not surprisingly, the larger Areas in scenarios 5 and 6 differ because they represent a different underlying occupancy structure; in scenarios 5 and 6, the Areas are comprised of three strata, each with their own

independent occupancy status, and the Area is considered occupied if any of the three strata are occupied. Given that the marginal probability of occupancy for each stratum is ~ 0.27, the probability that one or more strata are occupied is $1-(1-0.27)^3 \approx 0.61$. However, the probability of selecting an occupied stratum when choosing a Station to sample is unchanged, resulting in increased FOR.

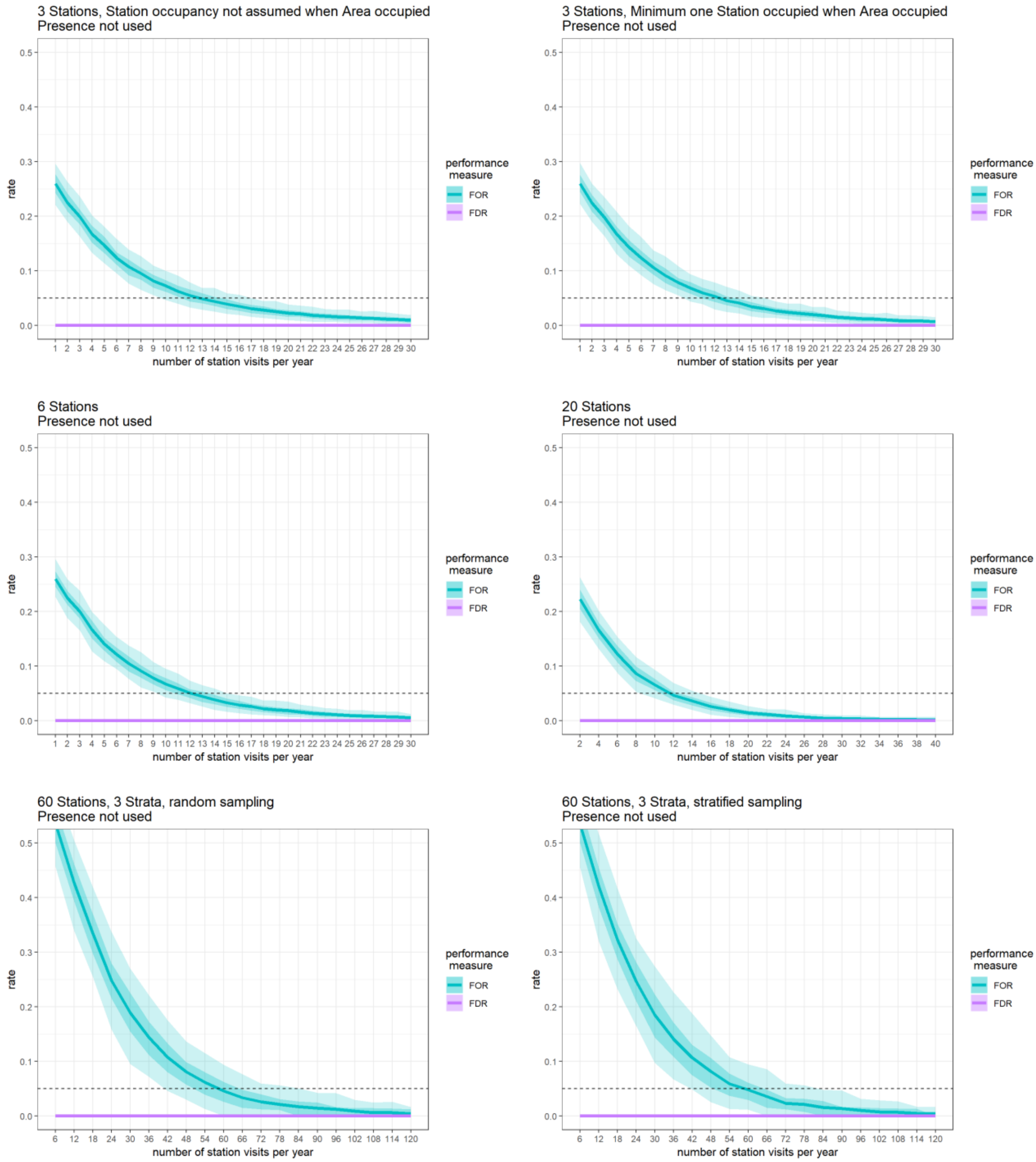

Figure 5: False Occupancy Rate and False Detection Rate when Area occupancy classification does not depend on presence detections, for each of six scenarios (1-6 left to right, top to bottom). Solid lines are posterior means, dark shaded regions are 50% credible regions, light shaded regions are 95% credible regions. The dashed reference line at 0.05 was based on discussions with the statistical subcommittee.

Single presence detection determines occupancy

Moving to a decision rule in which a single Station visit with a presence detection determines Area occupancy, we see a large reduction in the FOR – the probability of an Area that was determined to be not occupied is in fact occupied is much lower (Figure 6). This is a consequence of the labelling of Areas with one or more presence detections as occupied; it becomes much more unlikely that a visit to an occupied Area will have neither an occupancy detection nor a presence detection. However, this increased sensitivity to occupancy comes at the price of a likely unacceptably large FDR – the probability that an Area that was determined to be occupied but is in fact not occupied is no longer zero but rather appreciable, and in many cases much larger than the FOR.

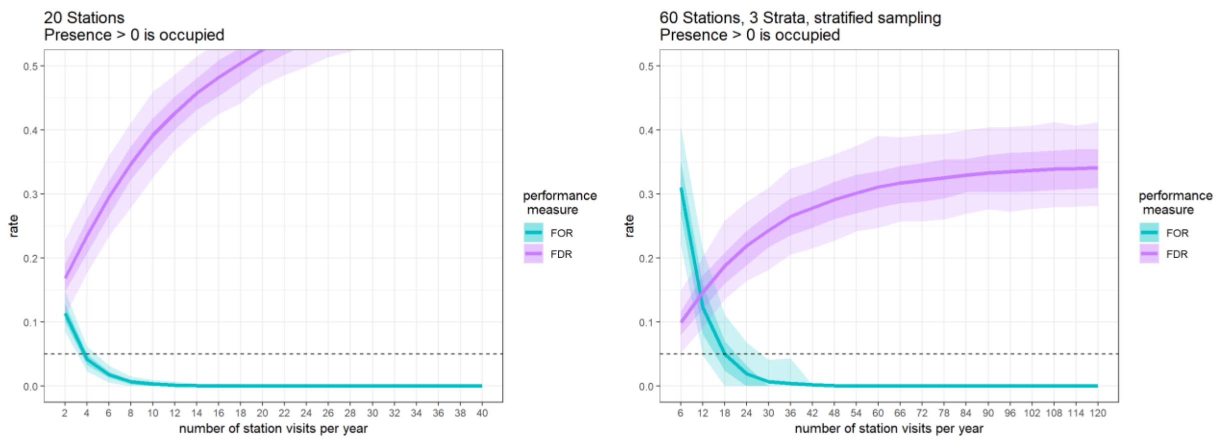

Figure 6: False Occupancy Rate and False Detection Rate when one or more visits with presence observed would classify an Area as occupied. There were no noticeable differences among scenarios 1-4 and among scenarios 5-6; the left figure shows scenario 4 and the right figure shows scenario 6. Solid lines are posterior means, dark shaded regions are 50% credible regions, light shaded regions are 95% credible regions. The dashed reference line at 0.05 was added based on discussions with the statistical subcommittee.

Two presence detections determine occupancy

Moving to a decision rule in which two Station visits with presence detected determines Area occupancy, there is an increase in the FOR and a decrease in the FDR (Figure 7) for a given number of station visits. In the case of Scenario 4, for example, there is a level of sampling effort (6-7 Station visits per year) for which both the FOR and FDR are expected to be below 5% probability. However, given the uncertainty in the performance of such a protocol resulting from uncertainty in the occupancy model parameters – as depicted by the shaded regions around the performance measure average curves – it is entirely possible that such a survey protocol would not meet a 5% threshold for either performance measure.

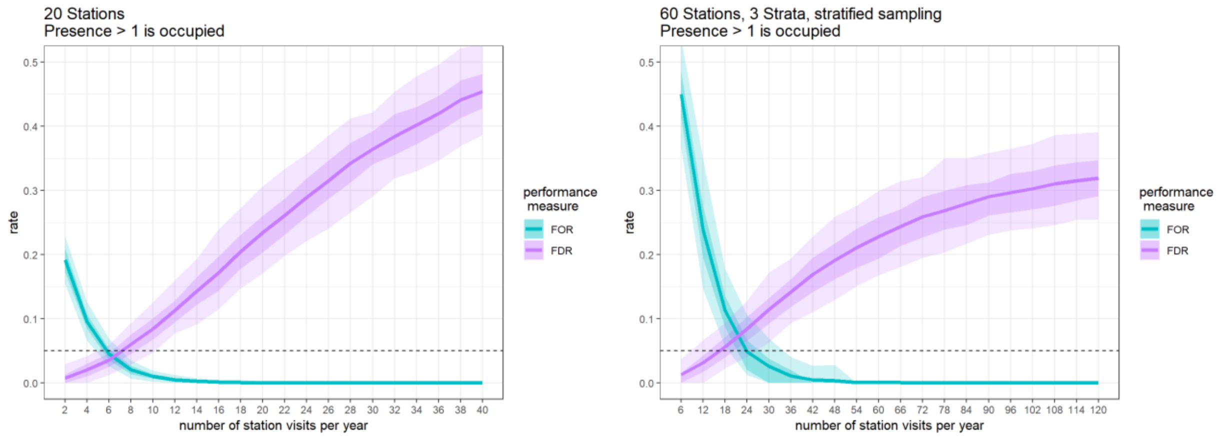

Figure 7: False Occupancy Rate and False Detection Rate when two or more visits with presence observed would classify an Area as occupied. There were no noticeable differences among scenarios 1-4 and among scenarios 5-6; the left figure shows scenario 4 and the right figure shows scenario 6. Solid lines are posterior means, dark shaded regions are 50% credible regions, light shaded regions are 95% credible regions. The dashed reference line at 0.05 was added based on discussions with the statistical subcommittee.

Three presence detections determine occupancy

Increasing the number of presence detections that determine Area occupancy to three or more achieves a FOR of 5% with an amount of sampling that is well below that required when presence detections are ignored (Figure 8). For example, under scenario 4, twelve survey visits per year would be required to achieve a FOR of 5% if presence detections were not used (Figure 5, middle-right); only eight survey visits per year are required to achieve a FOR of 5% here. The reduction in survey effort required comes at the cost of an increase in the FDR, to somewhere between 0-1.5% with 95% probability.

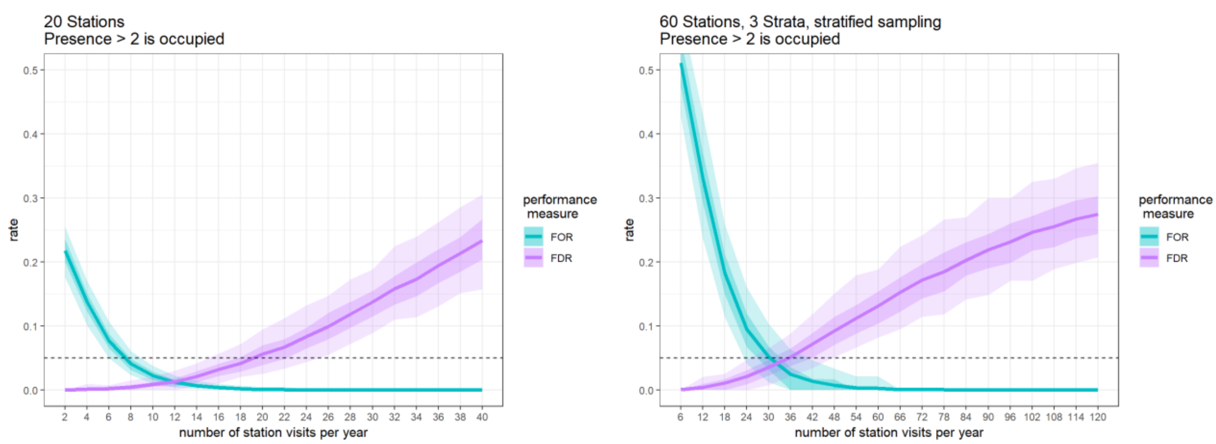

Figure 8: False Occupancy Rate and False Detection Rate when three or more visits with presence observed would classify an Area as occupied. There were no noticeable differences among scenarios 1-4 and among scenarios 5-6; the left figure shows scenario 4 and the right figure shows scenario 6. Solid lines are posterior means, dark shaded regions are 50% credible regions, light shaded regions are 95% credible regions. The dashed reference line at 0.05 was added based on discussions with the statistical subcommittee.

Four presence detections determine occupancy

Despite the appreciable reduction in survey effort required to meet the FOR target when three presence detections determine occupancy, an FDR of up to 2% with 95% probability may be too costly for landowners. Moving up to four presence detections determining Area occupancy is a potential compromise for Areas such as those in scenarios 1-4 (Figure 9). For example, under scenario 4, we can expect to achieve a FOR of 5% by visiting 9 times per year, and the corresponding FDR is not more than 0.6% with 95% probability.

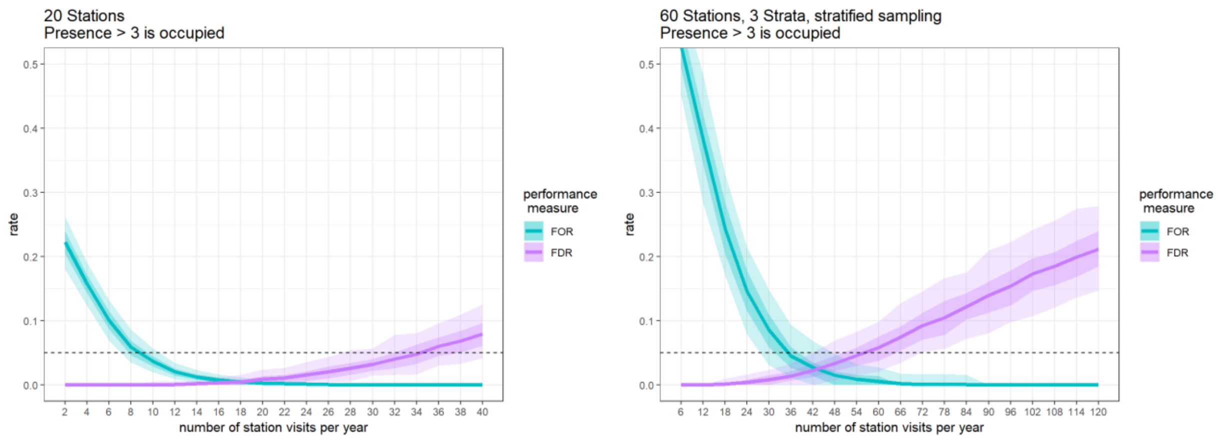

Figure 9: False Occupancy Rate and False Detection Rate when four or more visits with presence observed would classify an Area as occupied. There were no noticeable differences among scenarios 1-4 and among scenarios 5-6; the left figure shows scenario 4 and the right figure shows scenario 6. Solid lines are posterior means, dark shaded regions are 50% credible regions, light shaded regions are 95% credible regions. The dashed reference line at 0.05 was added based on discussions with the statistical subcommittee.

Scenarios 5-6 and Areas larger than a traditional Site

Given that the plausibility of cases presented by scenarios 5, 6, and 7 depend largely on the assumptions of distinct strata with independent occupancy status, it is difficult to evaluate a protocol for cases in which the Area is much larger than the size of a Site under the current protocol. On the one hand, as the size of an Area is increased it will almost surely contain a marbled murrelet. However, there is insufficient information available to determine how the probability of murrelet occupancy increases with increasing size of Area. Thus, the performance of candidate protocols under scenarios 5, 6 and 7 are exploratory at best, and protocol recommendations will need to be based on information other than that available to this report.

Scenarios 5 and 6 describe Areas comprised of three strata of about the size of the current protocol maximum Site size. Each stratum is assumed to behave as a current protocol Site, and the occupancy of each stratum is independent of the rest – i.e., if we knew the occupancy status of one of the strata, we assume that this does not alter our knowledge about the occupancy status of the other two strata in the same Area. This is just one of many possible assumptions that could be made. The Appendix section *Occupancy among Sites in an Area* describes an attempt to estimate the degree of dependence in occupancy status among Sites within an Area, for a subset of the data from Oregon. Results suggest some dependence among Sites within an Area.

Assuming independence among positively dependent strata within an Area will result in lower FOR and higher FDR than if the occupancy status of the strata were truly independent.

Keeping this warning in mind, we can approximate the performance of surveys performed on larger Areas by carrying out surveys in each Site-sized stratum and assuming independence in occupancy status among the strata. Under an assumption of independence among strata, the relationship between stratum FOR and area FOR is $b = 1 - (1 - a)^{1/n}$, where a is the area FOR, b is the stratum FOR, and there are n strata in the Area.

Consider the case of an Area with three strata, as in scenarios 5 or 6, and suppose the target FOR is $a = 0.05$. In that case, we would achieve the Area FOR if the stratum FOR is $b = 1 - (1 - 0.05)^{1/3} = 1 - 0.983 = 0.017$. Surveys in each stratum could be conducted to achieve this lower stratum-level FOR. Presence thresholds, if used, would apply to each stratum rather than across the Area. It appears that this approach lines up closely with the simulation results for Scenario 6 for the mean FOR, although there is a slight difference for the 95th percentile FOR.

Area FDR could also be calculated assuming independence in the same way. However, whereas the Area FOR would be an overestimate of the actual FOR, the Area FDR would be an underestimate of the actual FDR if the strata occupancy status are positively dependent.

Additional results

Additional results, including tables, figures, and estimated performance measures for each jurisdiction separately, are available in the Appendix.

Data collection and reporting for future surveys

We recommend the following data collection and reporting for future surveys. These recommendations are based purely on considerations related to statistical inference using the survey data to inform future protocols. We recommend collection and reporting:

- The Area to be surveyed
- The location of the survey stations in the Area
- The planned survey dates for each station in the Area
- The actual survey dates for each station in the Area
- Weather or other conditions that would affect the presence or behavior of occupying MAMU or the detection of MAMU that are present
- The reason for termination of the survey
- Survey visits that were not made due to occupancy detection (stopping rule) or for some other reason need to be reported

Given the stated goal of implementing a spatial sampling approach, this information will be critical to future occupancy modelling using these data.

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Appendix

Model definition

$$Z_{i,t} \sim \text{Bern}(\Psi^*_{i,t})$$

$$V_{ij,t} \sim \text{Bern}(\theta_{S_i} Z_{i,t})$$

$$W_{ijk,t} \sim \text{Categorical}(p^*_{ijk,t})$$

$$\Psi^*_{i,t} = \begin{cases} \psi_{01} \text{ if } Z_{i,t-1} = 0 \\ \psi_{S_i,11} \text{ if } Z_{i,t-1} = 1 \\ \Psi_{S_i} \text{ if } Z_{i,t-1} = \emptyset \end{cases}$$

$$S_i = \begin{cases} 1 & \text{Oregon} \\ 2 & \text{Washington} \end{cases}$$

$$p^*_{ijk,t} = [V_{ij,t}(1 - p_{ijk,t} - q_1) + (1 - V_{ij,t})(1 - q_2), V_{ij,t} q_1 + (1 - V_{ij,t}) q_2, V_{ij,t} p_{ijk,t}]$$

$$\text{logit}(p_{ijk,t}) = [X_{D_{ijk,t}}]\beta + I(S_i = 2)\beta_{WA}$$

$$q_1 \sim \text{Beta}(1,1)$$

$$q_2 \sim \text{Beta}(1,1)$$

$$\psi_{01} \sim \text{Beta}(1,1)$$

$$\Psi_S \sim \text{Beta}(1,1) \text{ for } S \in \{1,2\}$$

$$\theta_S \sim \text{Beta}(1,1) \text{ for } S \in \{1,2\}$$

$$\beta_l \sim \text{N}(0,10^2) \text{ for } l \in \{1,2,\ldots,v\}$$

$$\beta_{WA} \sim \text{N}(0,1)$$

Additional identities

$$\psi_{S,11} = 1 - \psi_{S,10}$$

$$\psi_{S,10} = \psi_{S,01}\left(\frac{1 - \Psi_S}{\Psi_S}\right)$$

The index i is for Sites, the index j is for Stations within Sites, the index k is for repeated visits to a Station, and the index t is for the year. The data are the $W_{ijk,t}$, which is a four-dimensional array that is almost entirely empty due to many Sites having only one or two years of data during the period from 2003-2015. In addition, a few Sites have a large number of Stations, and a few Stations have a large number of visits, which caused MacKenzie (2016) to truncate the data array in order to use existing analysis software. We coded the model using a bugs language for R called *nimble*, which allows for dynamic indexing, allowing us to minimize the in-memory footprint of W by treating it as a ragged array.

This required constructing indexing vectors to identify Site by year combinations, Station by year combinations, and Site by previous year combinations (to implement the dynamic model for Z).

The matrix X is a B-spline basis for a cubic spline that allows the occupancy detection probability to vary smoothly as a function of the day of year. We used a spline basis with 8 degrees of freedom, evaluated at each day of the season. The notation $[X_{D_{ijk,t}}]$ indicates a row vector extracted from the basis. The row corresponds to the day of the season D on which the survey visit was made to Site i, Station j, visit k, in year t.

Nimble code for model

```
# Put a dummy -1 in for the last Z. This will be for site/year combinations that
#   don't have a previous year.
#   prev_siteyear for these cases is set to Nsiteyears + 1 in the input constants,
#   so that the Z is drawn using the marginal probability of occupancy.
Z[Nsiteyears+1] <- -1

for( i in 1:Nsiteyears ){
    # There are three cases here:
    # Z = -1 (marginal probability of occupancy) ==> prob = Psi
    # Z =  0 (transition from unoccupied)     ==> prob = psi_01
    # Z =  1 (maintain occupancy)    ==> prob = 1 - psi_10 = 1 - psi_01*(1-Psi)/Psi
    Z[i] ~ dbern( prob = (1-abs(Z[prev_siteyear[i]]))*psi_01 +
                    abs(Z[prev_siteyear[i]])*( ((Z[prev_siteyear[i]]+1)/2)*
                               ( 1 - psi_01*( ( 1 - Psi[state[i]] )/Psi[state[i]] ) ) +
                        ((1-Z[prev_siteyear[i]])/2)*Psi[state[i]] ) )
}

for( j in 1:Nstationyears ){
    V[j] ~ dbern( prob = theta[state[siteyear[j]]]*Z[siteyear[j]] )
}

for( k in 1:Nobs ){
    logit( p[k] ) <- inprod( beta_DOY[], bsplineDOY[k,] ) + state_WA[k]*beta_pWA
    pp[1:3,k] <- nimC( V[stationyear[k]]*(1-p[k]-q1) + (1-V[stationyear[k]])*(1-q2),
V[stationyear[k]]*q1 + (1-V[stationyear[k]])*q2, p[k]*V[stationyear[k]] )
    W[k] ~ dcat( prob = pp[1:3,k] )
}


# remaining priors
q1 ~ dbeta(1,1)
q2 ~ dbeta(1,1)
beta_pWA ~ dnorm( mean = 0, sd = 1 )
psi_01 ~ dbeta(1,1)

for( l in 1:Nstates ){
  theta[l] ~ dbeta(1, 1)
  Psi[l] ~ dbeta(1, 1)
  psi_10[l] <- psi_01*( ( 1 - Psi[l] )/Psi[l] )
}

for( m in 1:df_beta_DOY ){
  beta_DOY[m] ~ dnorm(mean = 0, sd = 10)
}
```

Occupancy among Sites in an Area

I used the additional Area information from Oregon Department of Forestry, Bureau of Land Management, US Forest Service, and Oregon State to attempt to identify dependence of occupancy among Sites in the same Area and quantify the amount of dependence if possible. Figure A-1 shows the distribution of the number of Sites per Area in the data examined.

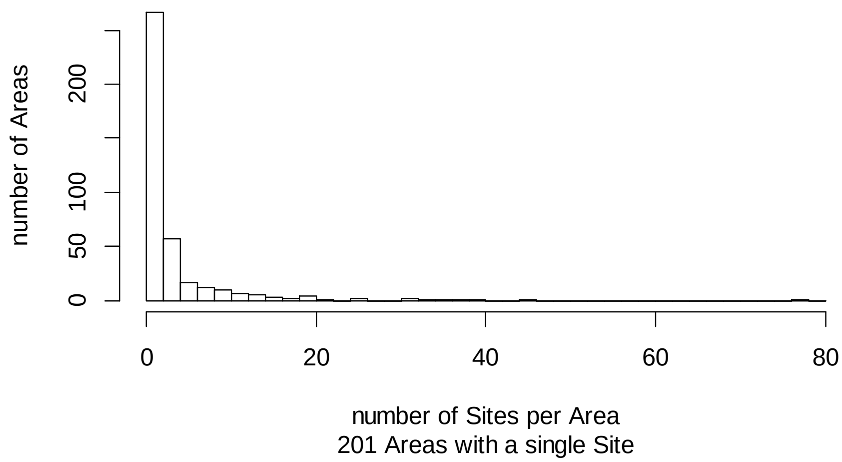


Figure A-1: The distribution of the number of Sites per Area for Sites with this information available.

For each Area, I determined the proportion of Sites that had an occupied behavior detected (Figure A-2, top panel), as well as the proportion of Sites that had a presence behavior detected (Figure A-2, bottom panel). The stopping rule makes it difficult to interpret these results. For instance, of 103 Areas with occupancy detections, 70 Areas had only one Site with occupancy detected. About half of these Areas were single-Site Areas, but it is not known whether these Areas included additional Sites that were not sampled due to the stopping rule.

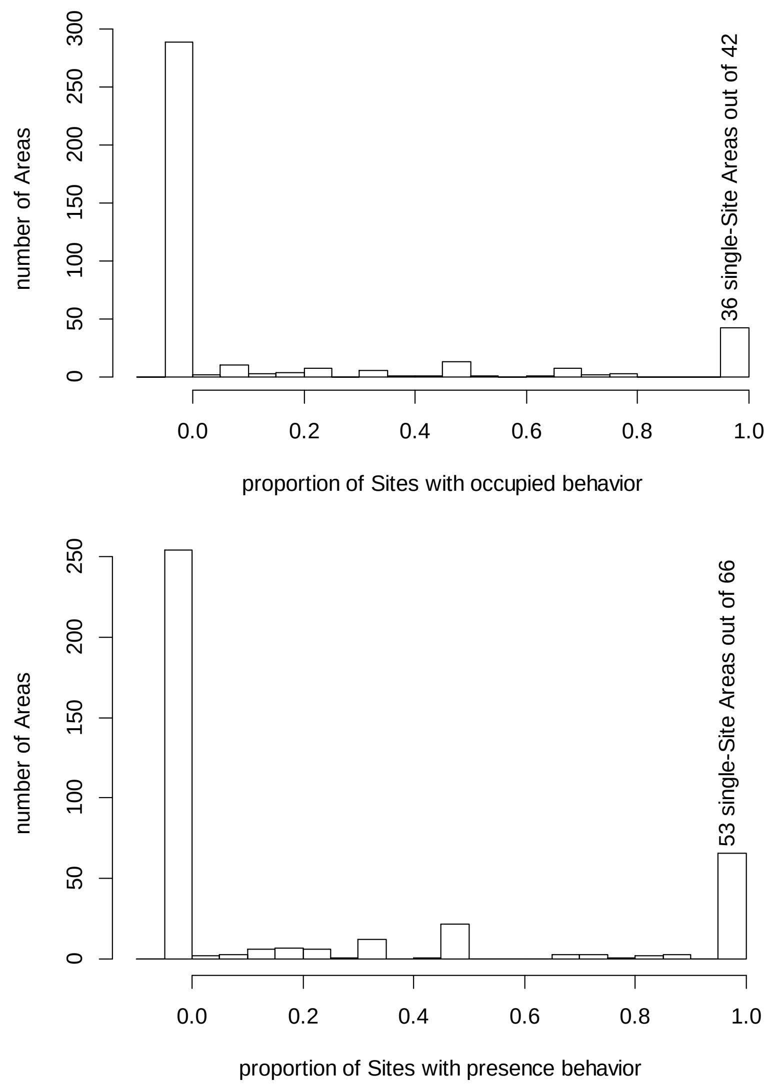


Figure A-2: Distribution of the proportion of Sites with occupied detections (top panel) and presence detections (bottom panel) by Area. In each case, most of the Areas with 100% had a single Site.

Ignoring the possible effects of the stopping rule and variation in detection probability, we would expect that the distribution of the number of Sites with occupancy (or presence) in any Area follows a binomial distribution. Table A-13 tabulates the number of Sites with occupancy or presence and the total number of Sites for each Area. There are not many very large Areas (with many Sites). There appears to be more variability than would be expected if the occupancy or presence status of Sites within an Area were independent.

One way to model the dependence among Sites is using a beta-binomial distribution for the number of Sites determined to be occupied (or have presence) in each Area, with the caveats above about ignoring effects of the stopping rule, and also under the assumption that occupancy is always detected for a Site that is occupied. Under these assumptions, we find that the correlation among Sites is positive; For

occupancy, the estimates are: $\mu = 0.16, \rho = 0.36\ (0.27, 0.47)$; For presence, the estimates are: $\mu = 0.23, \rho = 0.41\ (0.33, 0.50)$. These estimates for ρ include approximate 95% confidence intervals. For illustration, we show the case of $\rho = 0.41$ alongside the independent case and the case where all Sites are identical, for an occupied Area with three Strata (Figure A-3).

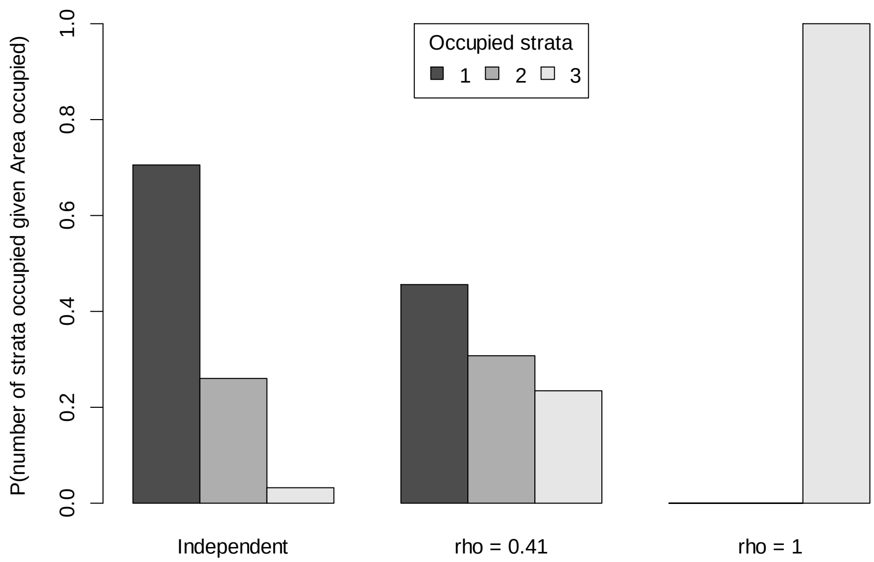


Figure A-3: Distribution of the number of occupied strata for an occupied 3-stratum Area, under three hypothetical values of the covariance parameter ρ.

Table A-13: The distribution of the number of Sites with Occupancy (top) and the number of Sites with Presence (bottom) for Sites within the same Area.

Number of Sites in Area

Sites with Occupancy	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	20	22	25	26	31	32	33	36	38	39	46	77
0	165	53	22	12	2	8	6	1	2	2	0	2	1	0	1	1	1	1	2	1	1	0	1	1	1	1	1	0	0	0
1	36	7	5	5	1	2	1	0	2	1	2	1	2	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	1	0
2		5	7	4	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3			0	2	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4				0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8								0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9									0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10										1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20																			0	0	0	1	0	0	0	0	0	0	0	0
21																				0	0	0	0	0	0	0	0	1	0	0

Number of Sites in Area

Sites with Presence	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	20	22	25	26	31	32	33	36	38	39	46	77
0	148	46	20	8	2	3	5	1	3	3	1	2	2	0	0	2	1	1	2	1	0	0	0	0	0	1	1	0	1	0
1	53	13	7	6	1	3	2	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
2		6	3	4	0	3	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0
3			4	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
4				2	0	0	0	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5					1	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
6						0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7							0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8								0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9									0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13													0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
18																		0	0	0	0	0	0	0	0	0	0	1	0	0

Tables of results

Oregon and Washington together

Table A-1: Performance measures for various protocol options under scenario 1. VpY is visits per year (for two years). PT is the presence threshold: How many visits with presence detections equate to occupancy? PT=0 means that presence detections are not used to determine occupancy.

VpY	PT	FO mean	FO 5%	FO 95%	FO 25%	FO 75%	FD mean	FD 5%	FD 95%	FD 25%	FD 75%
1	0	0.260	0.221	0.296	0.243	0.277	0.000	0.000	0.000	0.000	0.000
2	0	0.225	0.190	0.263	0.209	0.242	0.000	0.000	0.000	0.000	0.000
3	0	0.199	0.163	0.236	0.185	0.212	0.000	0.000	0.000	0.000	0.000
4	0	0.167	0.133	0.202	0.151	0.182	0.000	0.000	0.000	0.000	0.000
5	0	0.147	0.114	0.181	0.132	0.163	0.000	0.000	0.000	0.000	0.000
6	0	0.123	0.096	0.159	0.111	0.134	0.000	0.000	0.000	0.000	0.000
7	0	0.107	0.077	0.139	0.092	0.121	0.000	0.000	0.000	0.000	0.000
8	0	0.095	0.066	0.127	0.084	0.106	0.000	0.000	0.000	0.000	0.000
9	0	0.082	0.055	0.110	0.069	0.093	0.000	0.000	0.000	0.000	0.000
10	0	0.073	0.047	0.100	0.062	0.083	0.000	0.000	0.000	0.000	0.000
11	0	0.063	0.040	0.091	0.053	0.073	0.000	0.000	0.000	0.000	0.000
12	0	0.055	0.033	0.079	0.044	0.066	0.000	0.000	0.000	0.000	0.000
13	0	0.049	0.029	0.069	0.040	0.059	0.000	0.000	0.000	0.000	0.000
14	0	0.044	0.025	0.068	0.036	0.052	0.000	0.000	0.000	0.000	0.000
15	0	0.039	0.022	0.059	0.030	0.048	0.000	0.000	0.000	0.000	0.000
16	0	0.035	0.019	0.056	0.027	0.042	0.000	0.000	0.000	0.000	0.000
17	0	0.031	0.016	0.050	0.023	0.038	0.000	0.000	0.000	0.000	0.000
18	0	0.028	0.014	0.045	0.021	0.035	0.000	0.000	0.000	0.000	0.000
19	0	0.026	0.012	0.045	0.019	0.031	0.000	0.000	0.000	0.000	0.000
20	0	0.023	0.010	0.039	0.016	0.028	0.000	0.000	0.000	0.000	0.000
21	0	0.021	0.009	0.037	0.016	0.026	0.000	0.000	0.000	0.000	0.000
22	0	0.019	0.007	0.034	0.013	0.024	0.000	0.000	0.000	0.000	0.000
23	0	0.017	0.007	0.030	0.012	0.022	0.000	0.000	0.000	0.000	0.000
24	0	0.016	0.006	0.029	0.010	0.021	0.000	0.000	0.000	0.000	0.000
25	0	0.015	0.005	0.029	0.010	0.019	0.000	0.000	0.000	0.000	0.000
26	0	0.014	0.005	0.026	0.009	0.018	0.000	0.000	0.000	0.000	0.000
27	0	0.013	0.005	0.027	0.009	0.016	0.000	0.000	0.000	0.000	0.000
28	0	0.012	0.002	0.024	0.007	0.017	0.000	0.000	0.000	0.000	0.000
29	0	0.011	0.002	0.022	0.007	0.014	0.000	0.000	0.000	0.000	0.000
30	0	0.010	0.002	0.020	0.005	0.014	0.000	0.000	0.000	0.000	0.000
1	1	0.190	0.153	0.224	0.177	0.202	0.134	0.074	0.194	0.108	0.160
2	1	0.117	0.091	0.146	0.103	0.129	0.166	0.111	0.217	0.142	0.187
3	1	0.075	0.050	0.101	0.064	0.085	0.203	0.153	0.256	0.181	0.224
4	1	0.047	0.027	0.070	0.039	0.058	0.237	0.182	0.297	0.216	0.259
5	1	0.032	0.016	0.049	0.024	0.039	0.266	0.212	0.328	0.242	0.288
6	1	0.022	0.009	0.038	0.016	0.027	0.295	0.241	0.352	0.268	0.321
7	1	0.017	0.006	0.031	0.012	0.023	0.322	0.259	0.383	0.296	0.351
8	1	0.014	0.003	0.029	0.009	0.017	0.348	0.295	0.403	0.327	0.371
9	1	0.011	0.003	0.024	0.006	0.014	0.369	0.312	0.425	0.344	0.394
10	1	0.009	0.000	0.022	0.003	0.012	0.391	0.332	0.446	0.367	0.416
11	1	0.007	0.000	0.020	0.003	0.010	0.407	0.345	0.463	0.385	0.431
12	1	0.006	0.000	0.017	0.003	0.008	0.426	0.370	0.484	0.402	0.451

13	1	0.005	0.000	0.014	0.003	0.007	0.443	0.383	0.503	0.417	0.467
14	1	0.005	0.000	0.014	0.000	0.007	0.455	0.403	0.505	0.436	0.475
15	1	0.005	0.000	0.012	0.000	0.008	0.469	0.413	0.521	0.446	0.492
16	1	0.004	0.000	0.012	0.000	0.005	0.481	0.422	0.534	0.455	0.506
17	1	0.004	0.000	0.012	0.000	0.004	0.492	0.440	0.549	0.467	0.515
18	1	0.004	0.000	0.014	0.000	0.008	0.505	0.449	0.561	0.482	0.530
19	1	0.003	0.000	0.012	0.000	0.005	0.515	0.467	0.563	0.488	0.537
20	1	0.003	0.000	0.010	0.000	0.005	0.523	0.469	0.583	0.501	0.545
21	1	0.003	0.000	0.010	0.000	0.005	0.532	0.480	0.582	0.509	0.556
1	2	0.253	0.215	0.289	0.238	0.270	0.003	0.000	0.029	0.000	0.000
2	2	0.194	0.160	0.231	0.179	0.208	0.007	0.000	0.025	0.000	0.013
3	2	0.145	0.112	0.181	0.131	0.160	0.014	0.000	0.033	0.008	0.020
4	2	0.101	0.074	0.128	0.089	0.113	0.021	0.000	0.041	0.013	0.029
5	2	0.073	0.048	0.099	0.061	0.085	0.028	0.006	0.055	0.018	0.037
6	2	0.051	0.033	0.073	0.041	0.060	0.038	0.011	0.068	0.026	0.049
7	2	0.039	0.021	0.059	0.030	0.045	0.048	0.024	0.075	0.037	0.060
8	2	0.030	0.014	0.047	0.023	0.037	0.058	0.032	0.095	0.043	0.069
9	2	0.023	0.011	0.040	0.017	0.028	0.072	0.043	0.109	0.057	0.085
10	2	0.019	0.007	0.032	0.012	0.024	0.086	0.048	0.132	0.068	0.101
11	2	0.015	0.005	0.027	0.010	0.019	0.096	0.056	0.139	0.080	0.115
12	2	0.012	0.005	0.022	0.007	0.015	0.113	0.070	0.156	0.094	0.130
13	2	0.011	0.003	0.021	0.007	0.014	0.129	0.085	0.174	0.109	0.146
14	2	0.009	0.002	0.019	0.005	0.013	0.142	0.102	0.188	0.126	0.159
15	2	0.008	0.002	0.017	0.005	0.010	0.159	0.112	0.216	0.136	0.179
16	2	0.007	0.000	0.015	0.003	0.010	0.174	0.126	0.228	0.151	0.195
17	2	0.006	0.000	0.014	0.003	0.008	0.188	0.132	0.250	0.164	0.210
18	2	0.006	0.000	0.013	0.003	0.008	0.203	0.149	0.271	0.177	0.223
19	2	0.005	0.000	0.014	0.003	0.008	0.219	0.171	0.280	0.194	0.241
20	2	0.005	0.000	0.012	0.003	0.008	0.234	0.183	0.299	0.209	0.257
21	2	0.004	0.000	0.011	0.003	0.006	0.250	0.185	0.306	0.223	0.276
22	2	0.004	0.000	0.011	0.000	0.006	0.262	0.204	0.324	0.237	0.287
23	2	0.004	0.000	0.011	0.000	0.006	0.275	0.214	0.337	0.248	0.302
24	2	0.004	0.000	0.010	0.000	0.006	0.288	0.230	0.346	0.263	0.313
1	3	0.260	0.221	0.296	0.243	0.277	0.000	0.000	0.000	0.000	0.000
2	3	0.220	0.185	0.255	0.205	0.234	0.000	0.000	0.000	0.000	0.000
3	3	0.184	0.151	0.219	0.169	0.199	0.000	0.000	0.000	0.000	0.000
4	3	0.140	0.108	0.171	0.126	0.155	0.001	0.000	0.009	0.000	0.000
5	3	0.111	0.080	0.142	0.096	0.125	0.001	0.000	0.008	0.000	0.000
6	3	0.082	0.059	0.112	0.070	0.091	0.002	0.000	0.008	0.000	0.006
7	3	0.065	0.042	0.091	0.055	0.074	0.003	0.000	0.012	0.000	0.006
8	3	0.051	0.031	0.074	0.041	0.060	0.005	0.000	0.014	0.000	0.007
9	3	0.040	0.021	0.061	0.031	0.047	0.007	0.000	0.019	0.000	0.012
10	3	0.033	0.017	0.054	0.025	0.039	0.009	0.000	0.024	0.004	0.013
11	3	0.026	0.014	0.041	0.019	0.032	0.011	0.000	0.026	0.006	0.016
12	3	0.021	0.009	0.036	0.015	0.026	0.015	0.000	0.034	0.006	0.022
13	3	0.018	0.007	0.032	0.012	0.022	0.018	0.005	0.036	0.011	0.025
14	3	0.015	0.005	0.026	0.011	0.019	0.023	0.006	0.045	0.013	0.031
15	3	0.013	0.005	0.024	0.009	0.017	0.025	0.006	0.047	0.016	0.034
16	3	0.011	0.002	0.022	0.007	0.015	0.031	0.010	0.059	0.021	0.040
17	3	0.009	0.002	0.020	0.005	0.012	0.036	0.016	0.063	0.025	0.046

18	3	0.009	0.002	0.017	0.005	0.012	0.042	0.020	0.067	0.031	0.053
19	3	0.008	0.000	0.017	0.004	0.010	0.048	0.022	0.077	0.035	0.059
20	3	0.007	0.000	0.015	0.003	0.010	0.056	0.025	0.089	0.044	0.067
21	3	0.006	0.000	0.015	0.002	0.009	0.064	0.033	0.102	0.049	0.073
22	3	0.006	0.000	0.013	0.002	0.008	0.069	0.035	0.112	0.053	0.081
23	3	0.005	0.000	0.012	0.002	0.007	0.076	0.043	0.115	0.060	0.089
24	3	0.005	0.000	0.012	0.002	0.007	0.083	0.048	0.117	0.068	0.097
25	3	0.005	0.000	0.012	0.002	0.007	0.090	0.046	0.135	0.067	0.111
26	3	0.004	0.000	0.012	0.002	0.005	0.101	0.065	0.150	0.085	0.115
27	3	0.004	0.000	0.010	0.002	0.006	0.109	0.062	0.152	0.089	0.129
28	3	0.004	0.000	0.011	0.002	0.005	0.118	0.072	0.164	0.094	0.138
29	3	0.004	0.000	0.010	0.002	0.005	0.127	0.075	0.174	0.107	0.149
1	4	0.260	0.221	0.296	0.243	0.277	0.000	0.000	0.000	0.000	0.000
2	4	0.224	0.190	0.263	0.209	0.242	0.000	0.000	0.000	0.000	0.000
3	4	0.197	0.160	0.234	0.181	0.211	0.000	0.000	0.000	0.000	0.000
4	4	0.159	0.123	0.193	0.144	0.174	0.000	0.000	0.000	0.000	0.000
5	4	0.133	0.103	0.170	0.118	0.146	0.000	0.000	0.000	0.000	0.000
6	4	0.104	0.080	0.136	0.091	0.114	0.000	0.000	0.000	0.000	0.000
7	4	0.085	0.059	0.116	0.073	0.097	0.000	0.000	0.000	0.000	0.000
8	4	0.070	0.047	0.097	0.058	0.080	0.000	0.000	0.000	0.000	0.000
9	4	0.055	0.033	0.082	0.045	0.065	0.000	0.000	0.006	0.000	0.000
10	4	0.046	0.027	0.066	0.037	0.054	0.001	0.000	0.006	0.000	0.000
11	4	0.037	0.019	0.057	0.030	0.043	0.001	0.000	0.006	0.000	0.000
12	4	0.030	0.016	0.049	0.024	0.037	0.001	0.000	0.006	0.000	0.000
13	4	0.026	0.012	0.042	0.019	0.032	0.002	0.000	0.011	0.000	0.005
14	4	0.022	0.009	0.036	0.016	0.029	0.003	0.000	0.011	0.000	0.006
15	4	0.019	0.007	0.033	0.014	0.024	0.002	0.000	0.012	0.000	0.006
16	4	0.017	0.007	0.030	0.011	0.021	0.004	0.000	0.012	0.000	0.006
17	4	0.014	0.005	0.026	0.009	0.019	0.004	0.000	0.013	0.000	0.006
18	4	0.013	0.002	0.024	0.009	0.016	0.006	0.000	0.016	0.000	0.011
19	4	0.011	0.002	0.023	0.007	0.014	0.007	0.000	0.021	0.000	0.011
20	4	0.010	0.002	0.020	0.006	0.013	0.009	0.000	0.023	0.000	0.012
21	4	0.009	0.002	0.018	0.005	0.012	0.010	0.000	0.024	0.006	0.014
22	4	0.008	0.002	0.018	0.005	0.012	0.010	0.000	0.025	0.005	0.013
23	4	0.008	0.000	0.017	0.005	0.010	0.014	0.000	0.030	0.006	0.019
24	4	0.007	0.000	0.015	0.005	0.009	0.016	0.000	0.037	0.006	0.023
25	4	0.007	0.000	0.014	0.002	0.009	0.017	0.000	0.036	0.010	0.024
26	4	0.006	0.000	0.014	0.002	0.008	0.020	0.005	0.040	0.012	0.027
27	4	0.005	0.000	0.012	0.002	0.007	0.024	0.005	0.049	0.013	0.031
28	4	0.005	0.000	0.014	0.002	0.007	0.026	0.006	0.051	0.016	0.036
29	4	0.005	0.000	0.012	0.002	0.007	0.030	0.006	0.055	0.019	0.039
30	4	0.005	0.000	0.012	0.002	0.007	0.033	0.012	0.061	0.022	0.042
1	5	0.260	0.221	0.296	0.243	0.277	0.000	0.000	0.000	0.000	0.000
2	5	0.225	0.190	0.263	0.209	0.242	0.000	0.000	0.000	0.000	0.000
3	5	0.199	0.163	0.236	0.185	0.212	0.000	0.000	0.000	0.000	0.000
4	5	0.165	0.131	0.199	0.150	0.180	0.000	0.000	0.000	0.000	0.000
5	5	0.143	0.110	0.179	0.128	0.157	0.000	0.000	0.000	0.000	0.000
6	5	0.116	0.087	0.152	0.104	0.127	0.000	0.000	0.000	0.000	0.000
7	5	0.097	0.068	0.127	0.084	0.108	0.000	0.000	0.000	0.000	0.000
8	5	0.082	0.057	0.113	0.069	0.093	0.000	0.000	0.000	0.000	0.000

9	5	0.067	0.045	0.093	0.055	0.078	0.000	0.000	0.000	0.000	0.000
10	5	0.056	0.035	0.081	0.047	0.066	0.000	0.000	0.000	0.000	0.000
11	5	0.046	0.027	0.069	0.038	0.053	0.000	0.000	0.000	0.000	0.000
12	5	0.038	0.021	0.060	0.030	0.047	0.000	0.000	0.000	0.000	0.000
13	5	0.033	0.018	0.053	0.026	0.040	0.000	0.000	0.000	0.000	0.000
14	5	0.029	0.013	0.047	0.021	0.035	0.000	0.000	0.000	0.000	0.000
15	5	0.024	0.012	0.039	0.017	0.030	0.000	0.000	0.000	0.000	0.000
16	5	0.021	0.009	0.038	0.015	0.026	0.000	0.000	0.005	0.000	0.000
17	5	0.018	0.007	0.032	0.012	0.024	0.001	0.000	0.006	0.000	0.000
18	5	0.017	0.005	0.029	0.012	0.021	0.001	0.000	0.006	0.000	0.000
19	5	0.015	0.005	0.028	0.009	0.018	0.001	0.000	0.006	0.000	0.000
20	5	0.013	0.005	0.024	0.007	0.016	0.001	0.000	0.006	0.000	0.000
21	5	0.011	0.002	0.023	0.007	0.015	0.001	0.000	0.006	0.000	0.000
22	5	0.011	0.002	0.020	0.005	0.014	0.001	0.000	0.006	0.000	0.000
23	5	0.009	0.002	0.019	0.005	0.013	0.002	0.000	0.007	0.000	0.000
24	5	0.009	0.002	0.017	0.005	0.012	0.002	0.000	0.009	0.000	0.005
25	5	0.008	0.002	0.017	0.005	0.012	0.002	0.000	0.006	0.000	0.005
26	5	0.007	0.000	0.016	0.005	0.010	0.004	0.000	0.012	0.000	0.006
27	5	0.007	0.000	0.015	0.005	0.010	0.004	0.000	0.012	0.000	0.006
28	5	0.006	0.000	0.015	0.002	0.009	0.004	0.000	0.013	0.000	0.006
29	5	0.006	0.000	0.014	0.002	0.009	0.005	0.000	0.017	0.000	0.010
30	5	0.006	0.000	0.014	0.002	0.007	0.006	0.000	0.019	0.000	0.010
1	6	0.260	0.221	0.296	0.243	0.277	0.000	0.000	0.000	0.000	0.000
2	6	0.225	0.190	0.263	0.209	0.242	0.000	0.000	0.000	0.000	0.000
3	6	0.199	0.163	0.236	0.185	0.212	0.000	0.000	0.000	0.000	0.000
4	6	0.167	0.133	0.202	0.151	0.182	0.000	0.000	0.000	0.000	0.000
5	6	0.146	0.114	0.181	0.131	0.162	0.000	0.000	0.000	0.000	0.000
6	6	0.121	0.092	0.156	0.108	0.132	0.000	0.000	0.000	0.000	0.000
7	6	0.103	0.074	0.135	0.089	0.117	0.000	0.000	0.000	0.000	0.000
8	6	0.089	0.060	0.121	0.078	0.100	0.000	0.000	0.000	0.000	0.000
9	6	0.075	0.049	0.102	0.063	0.086	0.000	0.000	0.000	0.000	0.000
10	6	0.064	0.041	0.090	0.054	0.073	0.000	0.000	0.000	0.000	0.000
11	6	0.053	0.031	0.080	0.044	0.061	0.000	0.000	0.000	0.000	0.000
12	6	0.045	0.024	0.068	0.035	0.054	0.000	0.000	0.000	0.000	0.000
13	6	0.039	0.020	0.058	0.031	0.046	0.000	0.000	0.000	0.000	0.000
14	6	0.034	0.018	0.057	0.025	0.040	0.000	0.000	0.000	0.000	0.000
15	6	0.029	0.014	0.043	0.022	0.035	0.000	0.000	0.000	0.000	0.000
16	6	0.025	0.012	0.042	0.019	0.031	0.000	0.000	0.000	0.000	0.000
17	6	0.022	0.009	0.038	0.016	0.028	0.000	0.000	0.000	0.000	0.000
18	6	0.020	0.009	0.033	0.014	0.025	0.000	0.000	0.000	0.000	0.000
19	6	0.018	0.007	0.034	0.012	0.021	0.000	0.000	0.000	0.000	0.000
20	6	0.015	0.005	0.029	0.010	0.020	0.000	0.000	0.000	0.000	0.000
21	6	0.014	0.005	0.026	0.009	0.018	0.000	0.000	0.000	0.000	0.000
22	6	0.013	0.002	0.026	0.007	0.017	0.000	0.000	0.000	0.000	0.000
23	6	0.011	0.002	0.023	0.007	0.014	0.000	0.000	0.000	0.000	0.000
24	6	0.010	0.002	0.020	0.007	0.014	0.000	0.000	0.005	0.000	0.000
25	6	0.010	0.002	0.019	0.007	0.013	0.000	0.000	0.000	0.000	0.000
26	6	0.009	0.002	0.019	0.005	0.012	0.000	0.000	0.006	0.000	0.000
27	6	0.008	0.002	0.017	0.005	0.010	0.000	0.000	0.006	0.000	0.000
28	6	0.008	0.000	0.019	0.005	0.011	0.001	0.000	0.006	0.000	0.000

29	6	0.007	0.000	0.016	0.004	0.010	0.001	0.000	0.006	0.000	0.000
30	6	0.006	0.000	0.015	0.002	0.009	0.001	0.000	0.006	0.000	0.000

Table A-2: Performance measures for various protocol options under scenario 2. VpY is visits per year (for two years). PT is the presence threshold: How many visits with presence detections equate to occupancy? PT=0 means that presence detections are not used to determine occupancy.

VpY	PT	FO mean	FO 5%	FO 95%	FO 25%	FO 75%	FD mean	FD 5%	FD 95%	FD 25%	FD 75%
1	0	0.259	0.223	0.297	0.244	0.275	0.000	0.000	0.000	0.000	0.000
2	0	0.224	0.190	0.260	0.208	0.239	0.000	0.000	0.000	0.000	0.000
3	0	0.198	0.164	0.235	0.183	0.211	0.000	0.000	0.000	0.000	0.000
4	0	0.167	0.131	0.208	0.152	0.181	0.000	0.000	0.000	0.000	0.000
5	0	0.143	0.110	0.182	0.126	0.156	0.000	0.000	0.000	0.000	0.000
6	0	0.124	0.092	0.162	0.110	0.136	0.000	0.000	0.000	0.000	0.000
7	0	0.106	0.076	0.138	0.094	0.118	0.000	0.000	0.000	0.000	0.000
8	0	0.092	0.065	0.126	0.078	0.104	0.000	0.000	0.000	0.000	0.000
9	0	0.079	0.055	0.109	0.067	0.087	0.000	0.000	0.000	0.000	0.000
10	0	0.068	0.044	0.094	0.058	0.080	0.000	0.000	0.000	0.000	0.000
11	0	0.060	0.039	0.085	0.050	0.069	0.000	0.000	0.000	0.000	0.000
12	0	0.054	0.030	0.079	0.043	0.064	0.000	0.000	0.000	0.000	0.000
13	0	0.046	0.025	0.071	0.037	0.053	0.000	0.000	0.000	0.000	0.000
14	0	0.041	0.022	0.064	0.033	0.049	0.000	0.000	0.000	0.000	0.000
15	0	0.035	0.017	0.054	0.026	0.043	0.000	0.000	0.000	0.000	0.000
16	0	0.031	0.014	0.051	0.023	0.037	0.000	0.000	0.000	0.000	0.000
17	0	0.027	0.014	0.044	0.020	0.033	0.000	0.000	0.000	0.000	0.000
18	0	0.024	0.011	0.040	0.018	0.030	0.000	0.000	0.000	0.000	0.000
19	0	0.022	0.010	0.040	0.016	0.027	0.000	0.000	0.000	0.000	0.000
20	0	0.020	0.009	0.034	0.014	0.026	0.000	0.000	0.000	0.000	0.000
21	0	0.018	0.007	0.034	0.011	0.022	0.000	0.000	0.000	0.000	0.000
22	0	0.016	0.005	0.027	0.011	0.019	0.000	0.000	0.000	0.000	0.000
23	0	0.014	0.005	0.025	0.009	0.018	0.000	0.000	0.000	0.000	0.000
24	0	0.013	0.002	0.024	0.007	0.016	0.000	0.000	0.000	0.000	0.000
25	0	0.012	0.002	0.021	0.007	0.016	0.000	0.000	0.000	0.000	0.000
26	0	0.011	0.002	0.024	0.007	0.014	0.000	0.000	0.000	0.000	0.000
27	0	0.009	0.002	0.019	0.005	0.014	0.000	0.000	0.000	0.000	0.000
28	0	0.008	0.000	0.018	0.005	0.012	0.000	0.000	0.000	0.000	0.000
29	0	0.008	0.000	0.017	0.005	0.012	0.000	0.000	0.000	0.000	0.000
30	0	0.007	0.000	0.015	0.005	0.010	0.000	0.000	0.000	0.000	0.000
1	1	0.189	0.155	0.223	0.174	0.204	0.135	0.078	0.200	0.106	0.161
2	1	0.115	0.086	0.148	0.104	0.128	0.168	0.114	0.221	0.147	0.190
3	1	0.071	0.050	0.092	0.061	0.080	0.201	0.143	0.254	0.177	0.223
4	1	0.045	0.025	0.070	0.035	0.053	0.235	0.171	0.293	0.215	0.258
5	1	0.029	0.013	0.044	0.023	0.034	0.265	0.211	0.325	0.240	0.285
6	1	0.019	0.006	0.032	0.014	0.023	0.293	0.232	0.348	0.271	0.321
7	1	0.013	0.003	0.026	0.009	0.017	0.323	0.259	0.383	0.298	0.348
8	1	0.010	0.003	0.020	0.006	0.012	0.348	0.292	0.408	0.324	0.375

9	1	0.007	0.000	0.017	0.003	0.010	0.369	0.312	0.433	0.339	0.397
10	1	0.006	0.000	0.014	0.003	0.009	0.391	0.328	0.453	0.368	0.418
11	1	0.004	0.000	0.013	0.000	0.007	0.410	0.350	0.467	0.386	0.437
12	1	0.003	0.000	0.010	0.000	0.004	0.426	0.369	0.489	0.400	0.454
1	2	0.252	0.215	0.295	0.237	0.267	0.003	0.000	0.026	0.000	0.000
2	2	0.192	0.160	0.227	0.178	0.207	0.008	0.000	0.031	0.000	0.013
3	2	0.143	0.111	0.177	0.131	0.155	0.013	0.000	0.033	0.008	0.020
4	2	0.100	0.069	0.134	0.088	0.111	0.020	0.000	0.040	0.013	0.026
5	2	0.070	0.046	0.097	0.059	0.078	0.027	0.007	0.048	0.019	0.035
6	2	0.049	0.029	0.075	0.041	0.056	0.037	0.012	0.064	0.026	0.047
7	2	0.036	0.019	0.052	0.028	0.042	0.048	0.023	0.084	0.036	0.058
8	2	0.026	0.012	0.043	0.019	0.033	0.060	0.028	0.090	0.047	0.073
9	2	0.020	0.009	0.036	0.014	0.024	0.072	0.039	0.110	0.055	0.086
10	2	0.015	0.005	0.026	0.010	0.019	0.086	0.048	0.125	0.069	0.101
11	2	0.012	0.002	0.024	0.007	0.015	0.101	0.062	0.144	0.083	0.117
12	2	0.009	0.000	0.018	0.005	0.012	0.115	0.069	0.167	0.096	0.132
13	2	0.007	0.000	0.015	0.005	0.010	0.129	0.083	0.180	0.108	0.150
14	2	0.006	0.000	0.013	0.003	0.008	0.143	0.098	0.193	0.122	0.164
15	2	0.005	0.000	0.010	0.002	0.007	0.157	0.101	0.215	0.135	0.176
16	2	0.004	0.000	0.010	0.000	0.005	0.173	0.122	0.223	0.153	0.193
1	3	0.259	0.223	0.297	0.244	0.275	0.000	0.000	0.000	0.000	0.000
2	3	0.219	0.183	0.255	0.204	0.234	0.000	0.000	0.000	0.000	0.000
3	3	0.183	0.148	0.218	0.168	0.196	0.000	0.000	0.000	0.000	0.000
4	3	0.141	0.108	0.182	0.128	0.155	0.001	0.000	0.009	0.000	0.000
5	3	0.106	0.075	0.141	0.094	0.118	0.001	0.000	0.008	0.000	0.000
6	3	0.082	0.054	0.111	0.069	0.093	0.002	0.000	0.008	0.000	0.006
7	3	0.062	0.038	0.084	0.051	0.071	0.003	0.000	0.013	0.000	0.006
8	3	0.048	0.027	0.072	0.038	0.056	0.004	0.000	0.014	0.000	0.007
9	3	0.036	0.021	0.057	0.028	0.042	0.007	0.000	0.019	0.000	0.011
10	3	0.029	0.014	0.045	0.022	0.035	0.009	0.000	0.025	0.005	0.013
11	3	0.023	0.009	0.038	0.016	0.028	0.013	0.000	0.029	0.006	0.018
12	3	0.018	0.005	0.032	0.012	0.023	0.015	0.000	0.032	0.006	0.022
13	3	0.014	0.005	0.026	0.009	0.019	0.017	0.005	0.036	0.011	0.023
14	3	0.012	0.003	0.023	0.007	0.016	0.022	0.005	0.043	0.012	0.031
15	3	0.010	0.002	0.019	0.005	0.012	0.025	0.006	0.050	0.015	0.033
16	3	0.008	0.000	0.017	0.005	0.012	0.032	0.011	0.060	0.021	0.041
17	3	0.007	0.000	0.014	0.005	0.009	0.035	0.011	0.065	0.024	0.044
18	3	0.005	0.000	0.012	0.002	0.007	0.043	0.022	0.073	0.032	0.052
19	3	0.005	0.000	0.012	0.002	0.007	0.050	0.027	0.079	0.036	0.059
20	3	0.004	0.000	0.010	0.002	0.005	0.055	0.029	0.089	0.040	0.068
1	4	0.259	0.223	0.297	0.244	0.275	0.000	0.000	0.000	0.000	0.000
2	4	0.224	0.190	0.259	0.207	0.238	0.000	0.000	0.000	0.000	0.000

3	4	0.195	0.162	0.234	0.181	0.209	0.000	0.000	0.000	0.000	0.000
4	4	0.160	0.124	0.199	0.145	0.174	0.000	0.000	0.000	0.000	0.000
5	4	0.129	0.098	0.167	0.114	0.142	0.000	0.000	0.000	0.000	0.000
6	4	0.104	0.075	0.139	0.092	0.115	0.000	0.000	0.000	0.000	0.000
7	4	0.083	0.055	0.111	0.072	0.094	0.000	0.000	0.000	0.000	0.000
8	4	0.065	0.041	0.095	0.055	0.075	0.000	0.000	0.000	0.000	0.000
9	4	0.052	0.036	0.078	0.042	0.058	0.000	0.000	0.006	0.000	0.000
10	4	0.042	0.023	0.063	0.032	0.051	0.000	0.000	0.006	0.000	0.000
11	4	0.034	0.016	0.051	0.027	0.042	0.001	0.000	0.006	0.000	0.000
12	4	0.028	0.013	0.046	0.020	0.034	0.001	0.000	0.006	0.000	0.000
13	4	0.022	0.009	0.038	0.017	0.027	0.001	0.000	0.006	0.000	0.000
14	4	0.019	0.007	0.032	0.014	0.024	0.002	0.000	0.011	0.000	0.005
15	4	0.015	0.005	0.027	0.010	0.019	0.003	0.000	0.012	0.000	0.006
16	4	0.013	0.005	0.025	0.007	0.017	0.004	0.000	0.013	0.000	0.006
17	4	0.011	0.005	0.021	0.007	0.014	0.005	0.000	0.013	0.000	0.006
18	4	0.009	0.002	0.018	0.005	0.012	0.006	0.000	0.016	0.000	0.010
19	4	0.008	0.002	0.016	0.005	0.012	0.007	0.000	0.018	0.000	0.011
20	4	0.007	0.000	0.015	0.005	0.010	0.009	0.000	0.024	0.005	0.013
21	4	0.006	0.000	0.012	0.002	0.009	0.010	0.000	0.024	0.005	0.012
22	4	0.005	0.000	0.010	0.002	0.007	0.011	0.000	0.024	0.005	0.016
23	4	0.004	0.000	0.012	0.002	0.007	0.013	0.000	0.029	0.006	0.018
24	4	0.004	0.000	0.010	0.002	0.006	0.015	0.000	0.034	0.006	0.021
1	5	0.259	0.223	0.297	0.244	0.275	0.000	0.000	0.000	0.000	0.000
2	5	0.224	0.190	0.260	0.208	0.239	0.000	0.000	0.000	0.000	0.000
3	5	0.198	0.162	0.235	0.183	0.211	0.000	0.000	0.000	0.000	0.000
4	5	0.166	0.130	0.207	0.150	0.180	0.000	0.000	0.000	0.000	0.000
5	5	0.139	0.108	0.177	0.122	0.152	0.000	0.000	0.000	0.000	0.000
6	5	0.116	0.086	0.151	0.103	0.129	0.000	0.000	0.000	0.000	0.000
7	5	0.096	0.066	0.127	0.083	0.107	0.000	0.000	0.000	0.000	0.000
8	5	0.078	0.052	0.110	0.066	0.089	0.000	0.000	0.000	0.000	0.000
9	5	0.064	0.044	0.092	0.053	0.071	0.000	0.000	0.000	0.000	0.000
10	5	0.052	0.032	0.077	0.042	0.062	0.000	0.000	0.000	0.000	0.000
11	5	0.044	0.025	0.063	0.035	0.052	0.000	0.000	0.000	0.000	0.000
12	5	0.036	0.021	0.055	0.027	0.044	0.000	0.000	0.000	0.000	0.000
13	5	0.030	0.014	0.048	0.023	0.036	0.000	0.000	0.000	0.000	0.000
14	5	0.026	0.011	0.040	0.019	0.031	0.000	0.000	0.000	0.000	0.000
15	5	0.020	0.009	0.035	0.014	0.025	0.000	0.000	0.000	0.000	0.000
16	5	0.017	0.005	0.030	0.012	0.022	0.000	0.000	0.005	0.000	0.000
17	5	0.015	0.005	0.027	0.010	0.019	0.000	0.000	0.005	0.000	0.000
18	5	0.013	0.005	0.025	0.009	0.017	0.000	0.000	0.005	0.000	0.000
19	5	0.011	0.002	0.021	0.007	0.015	0.001	0.000	0.006	0.000	0.000
20	5	0.010	0.002	0.020	0.005	0.013	0.001	0.000	0.005	0.000	0.000

21	5	0.008	0.002	0.017	0.005	0.010	0.001	0.000	0.006	0.000	0.000
22	5	0.007	0.000	0.014	0.005	0.010	0.001	0.000	0.006	0.000	0.000
23	5	0.006	0.000	0.014	0.002	0.009	0.002	0.000	0.010	0.000	0.005
24	5	0.006	0.000	0.012	0.002	0.007	0.003	0.000	0.012	0.000	0.005
25	5	0.005	0.000	0.012	0.002	0.007	0.003	0.000	0.011	0.000	0.006
26	5	0.004	0.000	0.012	0.002	0.007	0.003	0.000	0.012	0.000	0.006
27	5	0.004	0.000	0.010	0.002	0.007	0.004	0.000	0.013	0.000	0.006
1	6	0.259	0.223	0.297	0.244	0.275	0.000	0.000	0.000	0.000	0.000
2	6	0.224	0.190	0.260	0.208	0.239	0.000	0.000	0.000	0.000	0.000
3	6	0.198	0.164	0.235	0.183	0.211	0.000	0.000	0.000	0.000	0.000
4	6	0.167	0.131	0.208	0.152	0.181	0.000	0.000	0.000	0.000	0.000
5	6	0.142	0.110	0.180	0.125	0.155	0.000	0.000	0.000	0.000	0.000
6	6	0.121	0.090	0.158	0.109	0.135	0.000	0.000	0.000	0.000	0.000
7	6	0.102	0.073	0.134	0.090	0.114	0.000	0.000	0.000	0.000	0.000
8	6	0.086	0.059	0.120	0.071	0.096	0.000	0.000	0.000	0.000	0.000
9	6	0.072	0.050	0.098	0.061	0.079	0.000	0.000	0.000	0.000	0.000
10	6	0.059	0.038	0.085	0.049	0.069	0.000	0.000	0.000	0.000	0.000
11	6	0.051	0.030	0.071	0.042	0.060	0.000	0.000	0.000	0.000	0.000
12	6	0.043	0.024	0.065	0.033	0.051	0.000	0.000	0.000	0.000	0.000
13	6	0.035	0.018	0.057	0.027	0.043	0.000	0.000	0.000	0.000	0.000
14	6	0.031	0.015	0.049	0.024	0.038	0.000	0.000	0.000	0.000	0.000
15	6	0.025	0.012	0.041	0.018	0.031	0.000	0.000	0.000	0.000	0.000
16	6	0.022	0.009	0.037	0.016	0.027	0.000	0.000	0.000	0.000	0.000
17	6	0.018	0.007	0.033	0.013	0.023	0.000	0.000	0.000	0.000	0.000
18	6	0.016	0.005	0.029	0.011	0.021	0.000	0.000	0.000	0.000	0.000
19	6	0.014	0.005	0.026	0.009	0.019	0.000	0.000	0.000	0.000	0.000
20	6	0.012	0.004	0.025	0.007	0.016	0.000	0.000	0.000	0.000	0.000
21	6	0.010	0.002	0.021	0.007	0.014	0.000	0.000	0.000	0.000	0.000
22	6	0.009	0.002	0.017	0.005	0.012	0.000	0.000	0.000	0.000	0.000
23	6	0.008	0.000	0.016	0.005	0.011	0.000	0.000	0.000	0.000	0.000
24	6	0.007	0.002	0.015	0.005	0.010	0.000	0.000	0.000	0.000	0.000
25	6	0.006	0.000	0.014	0.004	0.009	0.000	0.000	0.000	0.000	0.000
26	6	0.006	0.000	0.014	0.002	0.007	0.000	0.000	0.005	0.000	0.000
27	6	0.005	0.000	0.012	0.002	0.007	0.000	0.000	0.005	0.000	0.000
28	6	0.005	0.000	0.010	0.002	0.007	0.001	0.000	0.006	0.000	0.000

Table A-3: Performance measures for various protocol options under scenario 3. VpY is visits per year (for two years). PT is the presence threshold: How many visits with presence detections equate to occupancy? PT=0 means that presence detections are not used to determine occupancy.

VpY	PT	FO mean	FO 5%	FO 95%	FO 25%	FO 75%	FD mean	FD 5%	FD 95%	FD 25%	FD 75%
1	0	0.259	0.227	0.296	0.245	0.273	0.000	0.000	0.000	0.000	0.000
2	0	0.225	0.188	0.259	0.212	0.237	0.000	0.000	0.000	0.000	0.000
3	0	0.200	0.166	0.238	0.187	0.212	0.000	0.000	0.000	0.000	0.000
4	0	0.166	0.127	0.200	0.150	0.183	0.000	0.000	0.000	0.000	0.000
5	0	0.141	0.109	0.175	0.128	0.152	0.000	0.000	0.000	0.000	0.000
6	0	0.121	0.095	0.154	0.108	0.133	0.000	0.000	0.000	0.000	0.000
7	0	0.105	0.077	0.138	0.091	0.118	0.000	0.000	0.000	0.000	0.000
8	0	0.091	0.061	0.126	0.079	0.102	0.000	0.000	0.000	0.000	0.000
9	0	0.078	0.054	0.107	0.066	0.088	0.000	0.000	0.000	0.000	0.000
10	0	0.068	0.043	0.095	0.057	0.079	0.000	0.000	0.000	0.000	0.000
11	0	0.059	0.039	0.086	0.049	0.069	0.000	0.000	0.000	0.000	0.000
12	0	0.051	0.032	0.073	0.042	0.058	0.000	0.000	0.000	0.000	0.000
13	0	0.045	0.026	0.065	0.035	0.054	0.000	0.000	0.000	0.000	0.000
14	0	0.038	0.020	0.059	0.030	0.047	0.000	0.000	0.000	0.000	0.000
15	0	0.033	0.017	0.050	0.026	0.041	0.000	0.000	0.000	0.000	0.000
16	0	0.029	0.014	0.047	0.022	0.036	0.000	0.000	0.000	0.000	0.000
17	0	0.026	0.012	0.044	0.019	0.031	0.000	0.000	0.000	0.000	0.000
18	0	0.022	0.011	0.037	0.016	0.028	0.000	0.000	0.000	0.000	0.000
19	0	0.020	0.009	0.037	0.014	0.025	0.000	0.000	0.000	0.000	0.000
20	0	0.019	0.007	0.035	0.012	0.023	0.000	0.000	0.000	0.000	0.000
21	0	0.016	0.007	0.030	0.011	0.021	0.000	0.000	0.000	0.000	0.000
22	0	0.014	0.005	0.027	0.009	0.018	0.000	0.000	0.000	0.000	0.000
23	0	0.013	0.004	0.024	0.007	0.017	0.000	0.000	0.000	0.000	0.000
24	0	0.011	0.002	0.022	0.007	0.014	0.000	0.000	0.000	0.000	0.000
25	0	0.010	0.002	0.020	0.007	0.014	0.000	0.000	0.000	0.000	0.000
26	0	0.009	0.002	0.020	0.005	0.012	0.000	0.000	0.000	0.000	0.000
27	0	0.008	0.002	0.017	0.005	0.012	0.000	0.000	0.000	0.000	0.000
28	0	0.008	0.000	0.017	0.005	0.010	0.000	0.000	0.000	0.000	0.000
29	0	0.007	0.000	0.017	0.002	0.009	0.000	0.000	0.000	0.000	0.000
30	0	0.006	0.000	0.012	0.002	0.007	0.000	0.000	0.000	0.000	0.000
1	1	0.190	0.159	0.227	0.175	0.205	0.132	0.068	0.196	0.106	0.157
2	1	0.115	0.088	0.144	0.103	0.127	0.167	0.114	0.224	0.146	0.189
3	1	0.074	0.051	0.103	0.064	0.083	0.203	0.150	0.264	0.176	0.225
4	1	0.044	0.026	0.064	0.034	0.053	0.235	0.183	0.288	0.216	0.256
5	1	0.026	0.011	0.042	0.019	0.033	0.264	0.217	0.319	0.242	0.286
6	1	0.017	0.005	0.030	0.011	0.022	0.295	0.240	0.351	0.274	0.315
7	1	0.012	0.003	0.024	0.009	0.017	0.320	0.258	0.379	0.298	0.340
8	1	0.009	0.000	0.019	0.006	0.012	0.348	0.295	0.407	0.323	0.371

9	1	0.006	0.000	0.015	0.003	0.009	0.368	0.316	0.434	0.348	0.390
10	1	0.005	0.000	0.013	0.003	0.007	0.390	0.338	0.456	0.368	0.410
11	1	0.003	0.000	0.010	0.000	0.006	0.407	0.350	0.467	0.383	0.426
1	2	0.252	0.219	0.288	0.238	0.267	0.003	0.000	0.026	0.000	0.000
2	2	0.193	0.158	0.227	0.179	0.207	0.007	0.000	0.024	0.000	0.013
3	2	0.146	0.112	0.184	0.133	0.159	0.016	0.000	0.040	0.009	0.021
4	2	0.099	0.065	0.131	0.086	0.111	0.021	0.000	0.043	0.012	0.030
5	2	0.065	0.042	0.088	0.055	0.074	0.027	0.007	0.046	0.019	0.035
6	2	0.045	0.028	0.064	0.036	0.053	0.037	0.013	0.060	0.025	0.048
7	2	0.033	0.019	0.052	0.026	0.039	0.046	0.023	0.074	0.035	0.057
8	2	0.025	0.010	0.043	0.018	0.031	0.059	0.028	0.091	0.044	0.073
9	2	0.018	0.005	0.033	0.012	0.022	0.072	0.038	0.106	0.057	0.085
10	2	0.014	0.003	0.025	0.010	0.018	0.087	0.052	0.134	0.069	0.102
11	2	0.010	0.002	0.019	0.007	0.013	0.099	0.065	0.142	0.081	0.116
12	2	0.008	0.000	0.015	0.005	0.010	0.115	0.073	0.159	0.097	0.134
13	2	0.006	0.000	0.014	0.003	0.008	0.130	0.086	0.175	0.109	0.149
14	2	0.005	0.000	0.013	0.002	0.007	0.140	0.093	0.197	0.121	0.158
15	2	0.003	0.000	0.008	0.000	0.005	0.157	0.108	0.208	0.134	0.180
1	3	0.259	0.227	0.296	0.245	0.273	0.000	0.000	0.000	0.000	0.000
2	3	0.220	0.185	0.256	0.207	0.232	0.000	0.000	0.000	0.000	0.000
3	3	0.185	0.151	0.222	0.171	0.196	0.000	0.000	0.000	0.000	0.000
4	3	0.140	0.101	0.174	0.127	0.155	0.001	0.000	0.009	0.000	0.000
5	3	0.104	0.076	0.137	0.092	0.115	0.002	0.000	0.008	0.000	0.000
6	3	0.078	0.055	0.105	0.067	0.088	0.002	0.000	0.008	0.000	0.006
7	3	0.060	0.039	0.088	0.050	0.068	0.004	0.000	0.013	0.000	0.007
8	3	0.045	0.025	0.069	0.036	0.053	0.006	0.000	0.017	0.000	0.007
9	3	0.034	0.016	0.056	0.026	0.041	0.006	0.000	0.018	0.000	0.007
10	3	0.026	0.011	0.043	0.019	0.031	0.009	0.000	0.022	0.005	0.012
11	3	0.020	0.009	0.035	0.014	0.025	0.012	0.000	0.025	0.006	0.017
12	3	0.015	0.005	0.027	0.012	0.019	0.015	0.000	0.033	0.006	0.020
13	3	0.013	0.002	0.026	0.007	0.017	0.018	0.005	0.041	0.010	0.024
14	3	0.010	0.002	0.020	0.005	0.012	0.021	0.005	0.043	0.012	0.029
15	3	0.007	0.002	0.017	0.005	0.010	0.027	0.006	0.050	0.017	0.035
16	3	0.006	0.000	0.014	0.002	0.009	0.031	0.011	0.057	0.022	0.040
17	3	0.005	0.000	0.012	0.002	0.007	0.037	0.016	0.066	0.026	0.045
18	3	0.004	0.000	0.010	0.002	0.007	0.042	0.020	0.066	0.032	0.052
19	3	0.003	0.000	0.008	0.000	0.005	0.048	0.020	0.080	0.035	0.059
1	4	0.259	0.227	0.296	0.245	0.273	0.000	0.000	0.000	0.000	0.000
2	4	0.224	0.188	0.259	0.212	0.237	0.000	0.000	0.000	0.000	0.000
3	4	0.198	0.161	0.238	0.183	0.210	0.000	0.000	0.000	0.000	0.000
4	4	0.159	0.120	0.197	0.142	0.176	0.000	0.000	0.000	0.000	0.000
5	4	0.126	0.096	0.160	0.113	0.137	0.000	0.000	0.000	0.000	0.000

6	4	0.101	0.075	0.131	0.091	0.112	0.000	0.000	0.000	0.000	0.000
7	4	0.081	0.056	0.110	0.070	0.091	0.000	0.000	0.000	0.000	0.000
8	4	0.064	0.038	0.095	0.053	0.074	0.000	0.000	0.000	0.000	0.000
9	4	0.051	0.028	0.075	0.040	0.060	0.000	0.000	0.006	0.000	0.000
10	4	0.039	0.020	0.059	0.031	0.046	0.000	0.000	0.000	0.000	0.000
11	4	0.031	0.015	0.052	0.024	0.037	0.001	0.000	0.006	0.000	0.000
12	4	0.025	0.012	0.040	0.019	0.030	0.001	0.000	0.006	0.000	0.000
13	4	0.020	0.009	0.034	0.014	0.025	0.002	0.000	0.007	0.000	0.006
14	4	0.016	0.005	0.031	0.010	0.021	0.002	0.000	0.010	0.000	0.005
15	4	0.013	0.002	0.025	0.009	0.017	0.003	0.000	0.011	0.000	0.006
16	4	0.011	0.002	0.020	0.007	0.014	0.003	0.000	0.012	0.000	0.006
17	4	0.009	0.002	0.019	0.005	0.012	0.004	0.000	0.017	0.000	0.006
18	4	0.008	0.002	0.015	0.005	0.010	0.006	0.000	0.017	0.000	0.007
19	4	0.006	0.000	0.015	0.002	0.007	0.007	0.000	0.018	0.000	0.011
20	4	0.006	0.000	0.013	0.002	0.007	0.007	0.000	0.022	0.000	0.011
21	4	0.005	0.000	0.011	0.002	0.007	0.010	0.000	0.023	0.005	0.015
22	4	0.004	0.000	0.009	0.000	0.005	0.011	0.000	0.023	0.006	0.016
1	5	0.259	0.227	0.296	0.245	0.273	0.000	0.000	0.000	0.000	0.000
2	5	0.225	0.188	0.259	0.212	0.237	0.000	0.000	0.000	0.000	0.000
3	5	0.200	0.166	0.238	0.186	0.212	0.000	0.000	0.000	0.000	0.000
4	5	0.165	0.126	0.200	0.149	0.183	0.000	0.000	0.000	0.000	0.000
5	5	0.136	0.106	0.172	0.123	0.148	0.000	0.000	0.000	0.000	0.000
6	5	0.114	0.088	0.142	0.102	0.125	0.000	0.000	0.000	0.000	0.000
7	5	0.094	0.066	0.123	0.080	0.108	0.000	0.000	0.000	0.000	0.000
8	5	0.077	0.048	0.109	0.064	0.088	0.000	0.000	0.000	0.000	0.000
9	5	0.063	0.040	0.089	0.052	0.071	0.000	0.000	0.000	0.000	0.000
10	5	0.050	0.029	0.074	0.040	0.059	0.000	0.000	0.000	0.000	0.000
11	5	0.041	0.023	0.066	0.033	0.049	0.000	0.000	0.000	0.000	0.000
12	5	0.033	0.018	0.052	0.026	0.040	0.000	0.000	0.000	0.000	0.000
13	5	0.027	0.013	0.045	0.020	0.033	0.000	0.000	0.000	0.000	0.000
14	5	0.022	0.009	0.038	0.016	0.027	0.000	0.000	0.000	0.000	0.000
15	5	0.018	0.007	0.032	0.012	0.023	0.000	0.000	0.000	0.000	0.000
16	5	0.015	0.005	0.027	0.009	0.019	0.000	0.000	0.005	0.000	0.000
17	5	0.013	0.002	0.024	0.009	0.016	0.000	0.000	0.006	0.000	0.000
18	5	0.011	0.002	0.020	0.007	0.014	0.000	0.000	0.006	0.000	0.000
19	5	0.009	0.002	0.019	0.005	0.012	0.001	0.000	0.006	0.000	0.000
20	5	0.008	0.002	0.019	0.005	0.011	0.001	0.000	0.006	0.000	0.000
21	5	0.007	0.000	0.016	0.004	0.010	0.001	0.000	0.006	0.000	0.000
22	5	0.005	0.000	0.012	0.002	0.007	0.001	0.000	0.006	0.000	0.000
23	5	0.005	0.000	0.012	0.002	0.007	0.002	0.000	0.006	0.000	0.005
24	5	0.004	0.000	0.012	0.002	0.005	0.002	0.000	0.010	0.000	0.006
25	5	0.004	0.000	0.010	0.000	0.005	0.002	0.000	0.011	0.000	0.005

1	6	0.259	0.227	0.296	0.245	0.273	0.000	0.000	0.000	0.000	0.000
2	6	0.225	0.188	0.259	0.212	0.237	0.000	0.000	0.000	0.000	0.000
3	6	0.200	0.166	0.238	0.186	0.212	0.000	0.000	0.000	0.000	0.000
4	6	0.166	0.126	0.200	0.150	0.183	0.000	0.000	0.000	0.000	0.000
5	6	0.140	0.106	0.175	0.126	0.151	0.000	0.000	0.000	0.000	0.000
6	6	0.119	0.093	0.150	0.106	0.131	0.000	0.000	0.000	0.000	0.000
7	6	0.101	0.071	0.132	0.087	0.114	0.000	0.000	0.000	0.000	0.000
8	6	0.085	0.056	0.118	0.073	0.096	0.000	0.000	0.000	0.000	0.000
9	6	0.070	0.047	0.097	0.060	0.080	0.000	0.000	0.000	0.000	0.000
10	6	0.058	0.034	0.084	0.047	0.068	0.000	0.000	0.000	0.000	0.000
11	6	0.049	0.029	0.076	0.038	0.057	0.000	0.000	0.000	0.000	0.000
12	6	0.040	0.021	0.059	0.033	0.046	0.000	0.000	0.000	0.000	0.000
13	6	0.033	0.018	0.052	0.025	0.040	0.000	0.000	0.000	0.000	0.000
14	6	0.027	0.014	0.046	0.020	0.034	0.000	0.000	0.000	0.000	0.000
15	6	0.023	0.009	0.039	0.016	0.028	0.000	0.000	0.000	0.000	0.000
16	6	0.019	0.007	0.033	0.014	0.023	0.000	0.000	0.000	0.000	0.000
17	6	0.017	0.007	0.030	0.012	0.021	0.000	0.000	0.000	0.000	0.000
18	6	0.014	0.005	0.025	0.009	0.017	0.000	0.000	0.000	0.000	0.000
19	6	0.012	0.003	0.024	0.007	0.015	0.000	0.000	0.000	0.000	0.000
20	6	0.011	0.002	0.023	0.007	0.014	0.000	0.000	0.000	0.000	0.000
21	6	0.009	0.002	0.019	0.005	0.012	0.000	0.000	0.000	0.000	0.000
22	6	0.007	0.000	0.016	0.005	0.009	0.000	0.000	0.000	0.000	0.000
23	6	0.007	0.000	0.016	0.002	0.010	0.000	0.000	0.000	0.000	0.000
24	6	0.005	0.000	0.014	0.002	0.007	0.000	0.000	0.000	0.000	0.000
25	6	0.005	0.000	0.013	0.002	0.007	0.000	0.000	0.000	0.000	0.000
26	6	0.005	0.000	0.012	0.002	0.007	0.000	0.000	0.000	0.000	0.000
27	6	0.003	0.000	0.010	0.002	0.005	0.000	0.000	0.005	0.000	0.000

Table A-4: Performance measures for various protocol options under scenario 4. VpY is visits per year (for two years). PT is the presence threshold: How many visits with presence detections equate to occupancy? PT=0 means that presence detections are not used to determine occupancy.

VpY	PT	FO mean	FO 5%	FO 95%	FO 25%	FO 75%	FD mean	FD 5%	FD 95%	FD 25%	FD 75%
2	0	0.223	0.181	0.262	0.205	0.240	0.000	0.000	0.000	0.000	0.000
4	0	0.166	0.132	0.202	0.151	0.179	0.000	0.000	0.000	0.000	0.000
6	0	0.122	0.088	0.153	0.107	0.137	0.000	0.000	0.000	0.000	0.000
8	0	0.087	0.053	0.117	0.073	0.099	0.000	0.000	0.000	0.000	0.000
10	0	0.066	0.041	0.094	0.056	0.077	0.000	0.000	0.000	0.000	0.000
12	0	0.047	0.030	0.070	0.038	0.053	0.000	0.000	0.000	0.000	0.000
14	0	0.036	0.020	0.055	0.028	0.043	0.000	0.000	0.000	0.000	0.000
16	0	0.027	0.011	0.044	0.019	0.033	0.000	0.000	0.000	0.000	0.000
18	0	0.020	0.007	0.035	0.014	0.025	0.000	0.000	0.000	0.000	0.000
20	0	0.015	0.004	0.027	0.010	0.019	0.000	0.000	0.000	0.000	0.000
22	0	0.012	0.002	0.022	0.007	0.016	0.000	0.000	0.000	0.000	0.000
24	0	0.010	0.002	0.021	0.005	0.012	0.000	0.000	0.000	0.000	0.000
26	0	0.007	0.000	0.014	0.004	0.010	0.000	0.000	0.000	0.000	0.000
28	0	0.005	0.000	0.012	0.002	0.007	0.000	0.000	0.000	0.000	0.000
30	0	0.004	0.000	0.010	0.002	0.007	0.000	0.000	0.000	0.000	0.000
2	1	0.114	0.085	0.148	0.100	0.128	0.169	0.110	0.229	0.148	0.190
4	1	0.042	0.024	0.062	0.033	0.050	0.235	0.177	0.296	0.208	0.260
6	1	0.018	0.006	0.033	0.013	0.023	0.295	0.234	0.360	0.266	0.320
8	1	0.007	0.000	0.015	0.003	0.009	0.347	0.278	0.411	0.323	0.375
10	1	0.004	0.000	0.010	0.000	0.006	0.392	0.325	0.460	0.364	0.419
2	2	0.192	0.154	0.229	0.173	0.209	0.008	0.000	0.030	0.000	0.013
4	2	0.096	0.066	0.126	0.085	0.107	0.021	0.000	0.042	0.011	0.030
6	2	0.045	0.027	0.070	0.036	0.053	0.036	0.013	0.059	0.025	0.046
8	2	0.021	0.007	0.035	0.014	0.027	0.061	0.029	0.093	0.046	0.075
10	2	0.011	0.002	0.020	0.007	0.014	0.085	0.048	0.126	0.068	0.101
12	2	0.005	0.000	0.012	0.002	0.008	0.113	0.078	0.160	0.094	0.129
14	2	0.003	0.000	0.008	0.000	0.005	0.143	0.091	0.194	0.122	0.165
2	3	0.218	0.176	0.255	0.200	0.235	0.000	0.000	0.000	0.000	0.000
4	3	0.138	0.102	0.171	0.123	0.152	0.001	0.000	0.010	0.000	0.000
6	3	0.077	0.050	0.107	0.066	0.088	0.002	0.000	0.008	0.000	0.006
8	3	0.041	0.023	0.061	0.032	0.049	0.005	0.000	0.015	0.000	0.007
10	3	0.023	0.011	0.038	0.016	0.029	0.009	0.000	0.021	0.006	0.013
12	3	0.013	0.005	0.023	0.009	0.016	0.013	0.000	0.030	0.006	0.018
14	3	0.007	0.002	0.014	0.005	0.010	0.022	0.006	0.042	0.013	0.030
16	3	0.004	0.000	0.010	0.002	0.007	0.033	0.011	0.057	0.022	0.042
18	3	0.003	0.000	0.007	0.000	0.005	0.042	0.021	0.072	0.029	0.052
2	4	0.222	0.181	0.262	0.204	0.240	0.000	0.000	0.000	0.000	0.000
4	4	0.158	0.123	0.190	0.143	0.171	0.000	0.000	0.000	0.000	0.000

6	4	0.101	0.069	0.132	0.087	0.115	0.000	0.000	0.000	0.000	0.000
8	4	0.059	0.035	0.087	0.047	0.069	0.000	0.000	0.000	0.000	0.000
10	4	0.037	0.020	0.057	0.029	0.045	0.001	0.000	0.006	0.000	0.000
12	4	0.021	0.009	0.034	0.015	0.026	0.001	0.000	0.006	0.000	0.000
14	4	0.013	0.005	0.024	0.009	0.016	0.002	0.000	0.006	0.000	0.005
16	4	0.008	0.002	0.017	0.005	0.012	0.004	0.000	0.012	0.000	0.006
18	4	0.005	0.000	0.012	0.002	0.007	0.005	0.000	0.016	0.000	0.008
20	4	0.003	0.000	0.007	0.000	0.005	0.009	0.000	0.024	0.005	0.014
2	5	0.223	0.181	0.262	0.205	0.240	0.000	0.000	0.000	0.000	0.000
4	5	0.164	0.130	0.199	0.148	0.178	0.000	0.000	0.000	0.000	0.000
6	5	0.114	0.078	0.146	0.099	0.129	0.000	0.000	0.000	0.000	0.000
8	5	0.073	0.045	0.102	0.060	0.084	0.000	0.000	0.000	0.000	0.000
10	5	0.048	0.027	0.075	0.038	0.056	0.000	0.000	0.000	0.000	0.000
12	5	0.029	0.014	0.048	0.023	0.035	0.000	0.000	0.000	0.000	0.000
14	5	0.019	0.009	0.033	0.014	0.023	0.000	0.000	0.000	0.000	0.000
16	5	0.012	0.002	0.023	0.007	0.016	0.000	0.000	0.000	0.000	0.000
18	5	0.008	0.002	0.017	0.005	0.011	0.000	0.000	0.005	0.000	0.000
20	5	0.005	0.000	0.010	0.002	0.007	0.001	0.000	0.006	0.000	0.000
22	5	0.004	0.000	0.010	0.002	0.005	0.001	0.000	0.006	0.000	0.000
2	6	0.223	0.181	0.262	0.205	0.240	0.000	0.000	0.000	0.000	0.000
4	6	0.165	0.132	0.202	0.150	0.179	0.000	0.000	0.000	0.000	0.000
6	6	0.120	0.087	0.151	0.105	0.136	0.000	0.000	0.000	0.000	0.000
8	6	0.081	0.051	0.112	0.066	0.094	0.000	0.000	0.000	0.000	0.000
10	6	0.056	0.033	0.083	0.046	0.065	0.000	0.000	0.000	0.000	0.000
12	6	0.035	0.018	0.055	0.029	0.041	0.000	0.000	0.000	0.000	0.000
14	6	0.024	0.011	0.041	0.018	0.029	0.000	0.000	0.000	0.000	0.000
16	6	0.016	0.005	0.031	0.010	0.021	0.000	0.000	0.000	0.000	0.000
18	6	0.011	0.002	0.023	0.007	0.014	0.000	0.000	0.000	0.000	0.000
20	6	0.007	0.000	0.015	0.005	0.010	0.000	0.000	0.000	0.000	0.000
22	6	0.005	0.000	0.014	0.002	0.007	0.000	0.000	0.000	0.000	0.000
24	6	0.004	0.000	0.010	0.000	0.005	0.000	0.000	0.000	0.000	0.000
26	6	0.002	0.000	0.007	0.000	0.005	0.000	0.000	0.005	0.000	0.000

Table A-5: Performance measures for various protocol options under scenario 5. VpY is visits per year (for two years). PT is the presence threshold: How many visits with presence detections equate to occupancy? PT=0 means that presence detections are not used to determine occupancy.

VpY	PT	FO mean	FO 5%	FO 95%	FO 25%	FO 75%	FD mean	FD 5%	FD 95%	FD 25%	FD 75%
6	0	0.535	0.457	0.603	0.500	0.569	0.000	0.000	0.000	0.000	0.000
12	0	0.426	0.339	0.504	0.393	0.460	0.000	0.000	0.000	0.000	0.000
18	0	0.334	0.255	0.419	0.297	0.370	0.000	0.000	0.000	0.000	0.000
24	0	0.248	0.158	0.337	0.215	0.280	0.000	0.000	0.000	0.000	0.000
30	0	0.189	0.095	0.270	0.155	0.225	0.000	0.000	0.000	0.000	0.000
36	0	0.144	0.072	0.222	0.112	0.173	0.000	0.000	0.000	0.000	0.000
42	0	0.108	0.046	0.176	0.081	0.133	0.000	0.000	0.000	0.000	0.000
48	0	0.081	0.030	0.136	0.057	0.099	0.000	0.000	0.000	0.000	0.000
54	0	0.062	0.013	0.115	0.039	0.080	0.000	0.000	0.000	0.000	0.000
60	0	0.046	0.000	0.094	0.026	0.063	0.000	0.000	0.000	0.000	0.000
66	0	0.034	0.000	0.077	0.016	0.048	0.000	0.000	0.000	0.000	0.000
72	0	0.026	0.000	0.060	0.013	0.040	0.000	0.000	0.000	0.000	0.000
78	0	0.022	0.000	0.056	0.011	0.031	0.000	0.000	0.000	0.000	0.000
84	0	0.017	0.000	0.051	0.000	0.027	0.000	0.000	0.000	0.000	0.000
90	0	0.015	0.000	0.043	0.000	0.025	0.000	0.000	0.000	0.000	0.000
96	0	0.012	0.000	0.042	0.000	0.016	0.000	0.000	0.000	0.000	0.000
102	0	0.009	0.000	0.030	0.000	0.015	0.000	0.000	0.000	0.000	0.000
108	0	0.007	0.000	0.025	0.000	0.014	0.000	0.000	0.000	0.000	0.000
114	0	0.006	0.000	0.026	0.000	0.014	0.000	0.000	0.000	0.000	0.000
120	0	0.005	0.000	0.017	0.000	0.013	0.000	0.000	0.000	0.000	0.000
6	1	0.335	0.255	0.416	0.297	0.374	0.106	0.058	0.165	0.084	0.123
12	1	0.146	0.060	0.239	0.104	0.181	0.153	0.100	0.211	0.132	0.175
18	1	0.061	0.000	0.133	0.031	0.080	0.189	0.127	0.254	0.165	0.212
24	1	0.028	0.000	0.091	0.000	0.038	0.222	0.162	0.284	0.201	0.247
30	1	0.014	0.000	0.048	0.000	0.033	0.244	0.179	0.304	0.217	0.270
36	1	0.007	0.000	0.048	0.000	0.000	0.266	0.208	0.329	0.240	0.294
42	1	0.003	0.000	0.037	0.000	0.000	0.280	0.220	0.341	0.253	0.308
48	1	0.001	0.000	0.000	0.000	0.000	0.292	0.239	0.352	0.261	0.320
6	2	0.458	0.382	0.528	0.426	0.493	0.013	0.000	0.038	0.000	0.016
12	2	0.256	0.172	0.344	0.218	0.289	0.034	0.008	0.073	0.019	0.046
18	2	0.126	0.062	0.195	0.098	0.154	0.059	0.029	0.099	0.045	0.073
24	2	0.060	0.016	0.118	0.036	0.079	0.088	0.047	0.130	0.068	0.108
30	2	0.029	0.000	0.074	0.015	0.044	0.113	0.064	0.158	0.092	0.133
36	2	0.015	0.000	0.046	0.000	0.023	0.143	0.096	0.196	0.119	0.163
42	2	0.006	0.000	0.026	0.000	0.000	0.170	0.117	0.231	0.145	0.193
48	2	0.004	0.000	0.027	0.000	0.000	0.188	0.133	0.244	0.165	0.213
54	2	0.002	0.000	0.024	0.000	0.000	0.210	0.148	0.281	0.182	0.239
60	2	0.001	0.000	0.000	0.000	0.000	0.226	0.167	0.288	0.199	0.250

6	3	0.511	0.434	0.585	0.480	0.546	0.001	0.000	0.000	0.000	0.000
12	3	0.341	0.247	0.432	0.305	0.381	0.005	0.000	0.021	0.000	0.010
18	3	0.199	0.127	0.266	0.167	0.236	0.011	0.000	0.030	0.000	0.017
24	3	0.106	0.047	0.176	0.078	0.127	0.021	0.000	0.042	0.009	0.031
30	3	0.057	0.014	0.113	0.037	0.075	0.035	0.007	0.066	0.023	0.045
36	3	0.033	0.000	0.072	0.016	0.049	0.052	0.023	0.086	0.038	0.068
42	3	0.014	0.000	0.047	0.000	0.019	0.074	0.040	0.118	0.057	0.092
48	3	0.009	0.000	0.035	0.000	0.017	0.088	0.043	0.130	0.069	0.106
54	3	0.004	0.000	0.021	0.000	0.000	0.111	0.061	0.165	0.086	0.135
60	3	0.002	0.000	0.019	0.000	0.000	0.132	0.085	0.186	0.106	0.150
66	3	0.001	0.000	0.000	0.000	0.000	0.152	0.104	0.209	0.129	0.177
6	4	0.529	0.450	0.601	0.494	0.563	0.000	0.000	0.000	0.000	0.000
12	4	0.388	0.290	0.470	0.347	0.427	0.001	0.000	0.001	0.000	0.000
18	4	0.257	0.164	0.330	0.223	0.294	0.001	0.000	0.010	0.000	0.000
24	4	0.153	0.075	0.232	0.126	0.186	0.005	0.000	0.017	0.000	0.009
30	4	0.090	0.030	0.158	0.063	0.116	0.008	0.000	0.023	0.000	0.015
36	4	0.054	0.014	0.103	0.031	0.072	0.014	0.000	0.030	0.007	0.021
42	4	0.027	0.000	0.074	0.013	0.040	0.023	0.000	0.046	0.015	0.031
48	4	0.015	0.000	0.045	0.000	0.026	0.032	0.007	0.060	0.021	0.044
54	4	0.008	0.000	0.031	0.000	0.015	0.044	0.014	0.083	0.028	0.060
60	4	0.005	0.000	0.026	0.000	0.014	0.058	0.029	0.097	0.042	0.071
66	4	0.002	0.000	0.018	0.000	0.000	0.076	0.034	0.121	0.056	0.092
72	4	0.001	0.000	0.000	0.000	0.000	0.089	0.045	0.136	0.070	0.111
6	5	0.534	0.454	0.603	0.500	0.568	0.000	0.000	0.000	0.000	0.000
12	5	0.410	0.325	0.488	0.377	0.447	0.000	0.000	0.000	0.000	0.000
18	5	0.295	0.218	0.380	0.255	0.330	0.000	0.000	0.000	0.000	0.000
24	5	0.191	0.114	0.277	0.154	0.223	0.001	0.000	0.009	0.000	0.000
30	5	0.122	0.048	0.195	0.089	0.155	0.001	0.000	0.008	0.000	0.000
36	5	0.077	0.025	0.138	0.049	0.100	0.003	0.000	0.015	0.000	0.008
42	5	0.042	0.000	0.091	0.025	0.057	0.006	0.000	0.017	0.000	0.008
48	5	0.027	0.000	0.061	0.013	0.042	0.009	0.000	0.025	0.000	0.015
54	5	0.015	0.000	0.045	0.000	0.025	0.014	0.000	0.037	0.007	0.022
60	5	0.010	0.000	0.036	0.000	0.016	0.022	0.000	0.047	0.013	0.030
66	5	0.005	0.000	0.018	0.000	0.013	0.029	0.007	0.059	0.017	0.038
72	5	0.003	0.000	0.017	0.000	0.000	0.040	0.008	0.073	0.027	0.055
78	5	0.003	0.000	0.018	0.000	0.000	0.050	0.019	0.086	0.034	0.062
84	5	0.001	0.000	0.015	0.000	0.000	0.064	0.028	0.112	0.047	0.081
90	5	0.001	0.000	0.000	0.000	0.000	0.075	0.034	0.127	0.052	0.091
6	6	0.535	0.457	0.603	0.500	0.569	0.000	0.000	0.000	0.000	0.000
12	6	0.420	0.336	0.496	0.388	0.456	0.000	0.000	0.000	0.000	0.000
18	6	0.316	0.234	0.398	0.279	0.348	0.000	0.000	0.000	0.000	0.000
24	6	0.217	0.132	0.307	0.181	0.245	0.000	0.000	0.000	0.000	0.000

30	6	0.147	0.069	0.224	0.116	0.178	0.000	0.000	0.000	0.000	0.000
36	6	0.098	0.039	0.165	0.069	0.125	0.000	0.000	0.000	0.000	0.000
42	6	0.058	0.014	0.113	0.039	0.076	0.001	0.000	0.008	0.000	0.000
48	6	0.039	0.011	0.078	0.025	0.054	0.002	0.000	0.009	0.000	0.000
54	6	0.022	0.000	0.060	0.013	0.030	0.003	0.000	0.015	0.000	0.007
60	6	0.016	0.000	0.048	0.000	0.025	0.006	0.000	0.023	0.000	0.008
66	6	0.009	0.000	0.030	0.000	0.015	0.010	0.000	0.025	0.000	0.015
72	6	0.004	0.000	0.017	0.000	0.003	0.015	0.000	0.037	0.007	0.022
78	6	0.005	0.000	0.027	0.000	0.012	0.019	0.000	0.042	0.008	0.030
84	6	0.002	0.000	0.016	0.000	0.000	0.027	0.007	0.056	0.015	0.037
90	6	0.002	0.000	0.015	0.000	0.000	0.034	0.008	0.068	0.021	0.047
96	6	0.001	0.000	0.015	0.000	0.000	0.043	0.014	0.083	0.025	0.056
102	6	0.001	0.000	0.000	0.000	0.000	0.050	0.014	0.091	0.036	0.063

Table A-6: Performance measures for various protocol options under scenario 6. VpY is visits per year (for two years). PT is the presence threshold: How many visits with presence detections equate to occupancy? PT=0 means that presence detections are not used to determine occupancy.

VpY	PT	FO mean	FO 5%	FO 95%	FO 25%	FO 75%	FD mean	FD 5%	FD 95%	FD 25%	FD 75%
6	0	0.534	0.455	0.613	0.500	0.572	0.000	0.000	0.000	0.000	0.000
12	0	0.420	0.320	0.516	0.382	0.454	0.000	0.000	0.000	0.000	0.000
18	0	0.322	0.232	0.417	0.287	0.352	0.000	0.000	0.000	0.000	0.000
24	0	0.247	0.165	0.325	0.210	0.282	0.000	0.000	0.000	0.000	0.000
30	0	0.185	0.098	0.274	0.144	0.222	0.000	0.000	0.000	0.000	0.000
36	0	0.141	0.067	0.227	0.108	0.171	0.000	0.000	0.000	0.000	0.000
42	0	0.107	0.049	0.188	0.075	0.130	0.000	0.000	0.000	0.000	0.000
48	0	0.081	0.026	0.147	0.053	0.106	0.000	0.000	0.000	0.000	0.000
54	0	0.059	0.013	0.108	0.037	0.078	0.000	0.000	0.000	0.000	0.000
60	0	0.048	0.012	0.095	0.029	0.061	0.000	0.000	0.000	0.000	0.000
66	0	0.036	0.000	0.086	0.015	0.048	0.000	0.000	0.000	0.000	0.000
72	0	0.024	0.000	0.060	0.013	0.033	0.000	0.000	0.000	0.000	0.000
78	0	0.022	0.000	0.056	0.008	0.032	0.000	0.000	0.000	0.000	0.000
84	0	0.016	0.000	0.048	0.000	0.028	0.000	0.000	0.000	0.000	0.000
90	0	0.014	0.000	0.047	0.000	0.016	0.000	0.000	0.000	0.000	0.000
96	0	0.010	0.000	0.032	0.000	0.016	0.000	0.000	0.000	0.000	0.000
102	0	0.008	0.000	0.029	0.000	0.015	0.000	0.000	0.000	0.000	0.000
108	0	0.007	0.000	0.027	0.000	0.014	0.000	0.000	0.000	0.000	0.000
114	0	0.005	0.000	0.017	0.000	0.013	0.000	0.000	0.000	0.000	0.000
120	0	0.004	0.000	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	1	0.310	0.220	0.405	0.268	0.350	0.100	0.053	0.150	0.080	0.116
12	1	0.123	0.048	0.215	0.082	0.158	0.147	0.091	0.201	0.121	0.172
18	1	0.050	0.000	0.112	0.024	0.070	0.188	0.136	0.258	0.160	0.209
24	1	0.020	0.000	0.068	0.000	0.032	0.219	0.165	0.288	0.189	0.243
30	1	0.007	0.000	0.042	0.000	0.000	0.243	0.182	0.309	0.217	0.269
36	1	0.004	0.000	0.044	0.000	0.000	0.265	0.205	0.340	0.235	0.293
42	1	0.002	0.000	0.002	0.000	0.000	0.278	0.215	0.350	0.247	0.304
6	2	0.450	0.367	0.536	0.412	0.485	0.013	0.000	0.037	0.000	0.016
12	2	0.238	0.146	0.349	0.195	0.274	0.032	0.000	0.067	0.018	0.043
18	2	0.113	0.057	0.178	0.087	0.136	0.056	0.023	0.093	0.040	0.071
24	2	0.049	0.013	0.107	0.021	0.067	0.085	0.041	0.128	0.066	0.103
30	2	0.026	0.000	0.069	0.000	0.038	0.115	0.063	0.172	0.093	0.132
36	2	0.011	0.000	0.041	0.000	0.020	0.142	0.093	0.194	0.119	0.162
42	2	0.005	0.000	0.027	0.000	0.000	0.169	0.110	0.228	0.142	0.195
48	2	0.003	0.000	0.029	0.000	0.000	0.191	0.130	0.259	0.161	0.217
54	2	0.001	0.000	0.000	0.000	0.000	0.211	0.151	0.276	0.180	0.240
6	3	0.511	0.427	0.591	0.473	0.550	0.001	0.000	0.000	0.000	0.000
12	3	0.331	0.237	0.431	0.293	0.371	0.004	0.000	0.021	0.000	0.010

18	3	0.183	0.115	0.259	0.150	0.213	0.011	0.000	0.026	0.000	0.018
24	3	0.095	0.042	0.161	0.068	0.120	0.022	0.000	0.047	0.009	0.031
30	3	0.052	0.012	0.103	0.032	0.068	0.036	0.008	0.065	0.023	0.048
36	3	0.025	0.000	0.064	0.000	0.036	0.052	0.022	0.089	0.038	0.065
42	3	0.014	0.000	0.047	0.000	0.018	0.072	0.034	0.119	0.051	0.089
48	3	0.008	0.000	0.034	0.000	0.017	0.092	0.052	0.151	0.071	0.115
54	3	0.004	0.000	0.022	0.000	0.000	0.112	0.067	0.180	0.089	0.133
60	3	0.003	0.000	0.022	0.000	0.000	0.132	0.083	0.189	0.104	0.154
66	3	0.001	0.000	0.001	0.000	0.000	0.153	0.095	0.224	0.123	0.176
6	4	0.528	0.451	0.604	0.493	0.566	0.000	0.000	0.000	0.000	0.000
12	4	0.383	0.283	0.484	0.344	0.421	0.000	0.000	0.000	0.000	0.000
18	4	0.244	0.171	0.329	0.205	0.284	0.002	0.000	0.010	0.000	0.000
24	4	0.146	0.079	0.214	0.116	0.178	0.004	0.000	0.017	0.000	0.008
30	4	0.086	0.031	0.149	0.059	0.109	0.009	0.000	0.024	0.000	0.015
36	4	0.046	0.012	0.094	0.027	0.059	0.014	0.000	0.033	0.007	0.022
42	4	0.028	0.000	0.069	0.014	0.035	0.023	0.000	0.050	0.012	0.033
48	4	0.015	0.000	0.049	0.000	0.021	0.034	0.008	0.069	0.021	0.046
54	4	0.009	0.000	0.033	0.000	0.016	0.046	0.015	0.083	0.030	0.058
60	4	0.006	0.000	0.028	0.000	0.014	0.058	0.022	0.099	0.038	0.076
66	4	0.002	0.000	0.018	0.000	0.000	0.075	0.034	0.128	0.054	0.092
72	4	0.001	0.000	0.017	0.000	0.000	0.093	0.052	0.146	0.071	0.113
78	4	0.002	0.000	0.018	0.000	0.000	0.105	0.056	0.167	0.078	0.131
84	4	0.001	0.000	0.016	0.000	0.000	0.122	0.072	0.176	0.102	0.143
90	4	0.000	0.000	0.000	0.000	0.000	0.140	0.081	0.210	0.113	0.161
6	5	0.533	0.455	0.613	0.497	0.572	0.000	0.000	0.000	0.000	0.000
12	5	0.406	0.309	0.508	0.371	0.442	0.000	0.000	0.000	0.000	0.000
18	5	0.284	0.200	0.371	0.245	0.319	0.000	0.000	0.000	0.000	0.000
24	5	0.187	0.115	0.261	0.156	0.220	0.001	0.000	0.009	0.000	0.000
30	5	0.116	0.050	0.191	0.083	0.147	0.001	0.000	0.008	0.000	0.000
36	5	0.071	0.025	0.132	0.048	0.089	0.002	0.000	0.008	0.000	0.000
42	5	0.042	0.012	0.096	0.025	0.058	0.006	0.000	0.020	0.000	0.008
48	5	0.024	0.000	0.070	0.013	0.034	0.010	0.000	0.025	0.000	0.015
54	5	0.015	0.000	0.044	0.000	0.026	0.014	0.000	0.037	0.007	0.021
60	5	0.010	0.000	0.032	0.000	0.016	0.021	0.000	0.046	0.014	0.028
66	5	0.006	0.000	0.030	0.000	0.013	0.030	0.007	0.061	0.016	0.040
72	5	0.003	0.000	0.016	0.000	0.000	0.040	0.007	0.080	0.027	0.055
78	5	0.002	0.000	0.016	0.000	0.000	0.048	0.014	0.089	0.034	0.063
84	5	0.001	0.000	0.016	0.000	0.000	0.061	0.029	0.101	0.045	0.078
90	5	0.001	0.000	0.001	0.000	0.000	0.075	0.030	0.137	0.054	0.093
6	6	0.534	0.455	0.613	0.500	0.572	0.000	0.000	0.000	0.000	0.000
12	6	0.415	0.315	0.508	0.378	0.452	0.000	0.000	0.000	0.000	0.000
18	6	0.304	0.221	0.398	0.268	0.341	0.000	0.000	0.000	0.000	0.000

24	6	0.213	0.132	0.296	0.177	0.247	0.000	0.000	0.000	0.000	0.000
30	6	0.140	0.063	0.220	0.106	0.172	0.000	0.000	0.000	0.000	0.000
36	6	0.091	0.039	0.165	0.063	0.115	0.000	0.000	0.000	0.000	0.000
42	6	0.057	0.014	0.120	0.033	0.074	0.001	0.000	0.008	0.000	0.000
48	6	0.036	0.000	0.081	0.014	0.050	0.002	0.000	0.008	0.000	0.007
54	6	0.023	0.000	0.065	0.013	0.033	0.004	0.000	0.016	0.000	0.008
60	6	0.015	0.000	0.045	0.000	0.026	0.006	0.000	0.017	0.000	0.008
66	6	0.010	0.000	0.032	0.000	0.015	0.011	0.000	0.025	0.000	0.016
72	6	0.005	0.000	0.017	0.000	0.012	0.015	0.000	0.036	0.007	0.022
78	6	0.004	0.000	0.017	0.000	0.000	0.020	0.000	0.045	0.008	0.030
84	6	0.002	0.000	0.015	0.000	0.000	0.026	0.007	0.057	0.015	0.034
90	6	0.002	0.000	0.015	0.000	0.000	0.032	0.007	0.067	0.016	0.043
96	6	0.001	0.000	0.001	0.000	0.000	0.041	0.008	0.085	0.028	0.053

Table A-7: Performance measures for various protocol options under scenario 7. VpY is visits per year (for two years). PT is the presence threshold: How many visits with presence detections equate to occupancy? PT=0 means that presence detections are not used to determine occupancy.

VpY	PT	FO mean	FO 5%	FO 95%	FO 25%	FO 75%	FD mean	FD 5%	FD 95%	FD 25%	FD 75%
4	0	0.402	0.327	0.481	0.368	0.435	0.000	0.000	0.000	0.000	0.000
8	0	0.309	0.243	0.386	0.281	0.339	0.000	0.000	0.000	0.000	0.000
12	0	0.233	0.167	0.308	0.204	0.259	0.000	0.000	0.000	0.000	0.000
16	0	0.173	0.118	0.248	0.145	0.195	0.000	0.000	0.000	0.000	0.000
20	0	0.127	0.075	0.186	0.104	0.150	0.000	0.000	0.000	0.000	0.000
24	0	0.096	0.051	0.155	0.072	0.115	0.000	0.000	0.000	0.000	0.000
28	0	0.072	0.029	0.130	0.048	0.091	0.000	0.000	0.000	0.000	0.000
32	0	0.053	0.019	0.101	0.035	0.068	0.000	0.000	0.000	0.000	0.000
36	0	0.039	0.000	0.078	0.021	0.055	0.000	0.000	0.000	0.000	0.000
40	0	0.031	0.009	0.063	0.020	0.041	0.000	0.000	0.000	0.000	0.000
44	0	0.024	0.000	0.056	0.010	0.032	0.000	0.000	0.000	0.000	0.000
48	0	0.019	0.000	0.046	0.010	0.024	0.000	0.000	0.000	0.000	0.000
52	0	0.014	0.000	0.038	0.009	0.020	0.000	0.000	0.000	0.000	0.000
56	0	0.011	0.000	0.031	0.000	0.019	0.000	0.000	0.000	0.000	0.000
60	0	0.009	0.000	0.029	0.000	0.011	0.000	0.000	0.000	0.000	0.000
64	0	0.007	0.000	0.023	0.000	0.011	0.000	0.000	0.000	0.000	0.000
68	0	0.006	0.000	0.022	0.000	0.010	0.000	0.000	0.000	0.000	0.000
72	0	0.005	0.000	0.019	0.000	0.010	0.000	0.000	0.000	0.000	0.000
76	0	0.003	0.000	0.019	0.000	0.009	0.000	0.000	0.000	0.000	0.000
80	0	0.003	0.000	0.012	0.000	0.009	0.000	0.000	0.000	0.000	0.000
4	1	0.223	0.149	0.293	0.192	0.252	0.131	0.074	0.205	0.099	0.156
8	1	0.085	0.039	0.135	0.060	0.104	0.182	0.119	0.248	0.157	0.207
12	1	0.033	0.000	0.079	0.014	0.045	0.232	0.165	0.307	0.198	0.264
16	1	0.015	0.000	0.044	0.000	0.020	0.276	0.203	0.336	0.248	0.304
20	1	0.006	0.000	0.027	0.000	0.015	0.309	0.241	0.385	0.279	0.340
24	1	0.004	0.000	0.023	0.000	0.000	0.337	0.261	0.405	0.307	0.371
28	1	0.001	0.000	0.000	0.000	0.000	0.358	0.288	0.435	0.322	0.392
4	2	0.341	0.266	0.421	0.307	0.375	0.009	0.000	0.038	0.000	0.019
8	2	0.176	0.118	0.246	0.146	0.204	0.027	0.000	0.063	0.013	0.037
12	2	0.083	0.032	0.142	0.062	0.102	0.052	0.011	0.094	0.037	0.069
16	2	0.039	0.010	0.073	0.022	0.051	0.078	0.036	0.122	0.058	0.097
20	2	0.020	0.000	0.047	0.011	0.030	0.109	0.063	0.168	0.087	0.129
24	2	0.010	0.000	0.029	0.000	0.014	0.138	0.080	0.198	0.111	0.164
28	2	0.004	0.000	0.015	0.000	0.012	0.174	0.113	0.241	0.144	0.202
32	2	0.002	0.000	0.015	0.000	0.000	0.201	0.140	0.278	0.173	0.226
36	2	0.001	0.000	0.015	0.000	0.000	0.230	0.160	0.317	0.196	0.261
40	2	0.000	0.000	0.000	0.000	0.000	0.253	0.178	0.336	0.223	0.277
4	3	0.389	0.317	0.468	0.357	0.418	0.000	0.000	0.000	0.000	0.000
8	3	0.249	0.184	0.333	0.217	0.277	0.002	0.000	0.015	0.000	0.000

12	3	0.142	0.078	0.209	0.111	0.167	0.007	0.000	0.024	0.000	0.012
16	3	0.074	0.032	0.128	0.055	0.092	0.013	0.000	0.035	0.000	0.021
20	3	0.039	0.010	0.070	0.025	0.052	0.022	0.000	0.048	0.010	0.029
24	3	0.019	0.000	0.048	0.010	0.029	0.036	0.009	0.068	0.020	0.046
28	3	0.011	0.000	0.032	0.000	0.020	0.054	0.020	0.094	0.037	0.068
32	3	0.005	0.000	0.021	0.000	0.011	0.069	0.028	0.110	0.050	0.088
36	3	0.004	0.000	0.013	0.000	0.010	0.089	0.044	0.149	0.066	0.110
40	3	0.002	0.000	0.012	0.000	0.000	0.109	0.058	0.164	0.085	0.132
44	3	0.001	0.000	0.010	0.000	0.000	0.134	0.074	0.207	0.107	0.158
4	4	0.400	0.325	0.479	0.366	0.434	0.000	0.000	0.000	0.000	0.000
8	4	0.286	0.221	0.364	0.257	0.317	0.000	0.000	0.000	0.000	0.000
12	4	0.185	0.118	0.261	0.153	0.214	0.001	0.000	0.011	0.000	0.000
16	4	0.110	0.059	0.167	0.090	0.127	0.002	0.000	0.012	0.000	0.000
20	4	0.063	0.027	0.106	0.046	0.080	0.003	0.000	0.012	0.000	0.010
24	4	0.035	0.010	0.074	0.020	0.047	0.007	0.000	0.023	0.000	0.011
28	4	0.022	0.000	0.056	0.010	0.031	0.010	0.000	0.030	0.000	0.018
32	4	0.011	0.000	0.032	0.000	0.020	0.018	0.000	0.043	0.009	0.026
36	4	0.007	0.000	0.022	0.000	0.011	0.025	0.000	0.056	0.010	0.036
40	4	0.004	0.000	0.012	0.000	0.010	0.033	0.009	0.064	0.018	0.047
44	4	0.002	0.000	0.012	0.000	0.000	0.044	0.010	0.083	0.027	0.060
48	4	0.002	0.000	0.012	0.000	0.000	0.059	0.020	0.109	0.041	0.075
52	4	0.001	0.000	0.011	0.000	0.000	0.073	0.030	0.125	0.050	0.091
56	4	0.000	0.000	0.000	0.000	0.000	0.087	0.036	0.147	0.062	0.108
4	5	0.402	0.327	0.481	0.367	0.435	0.000	0.000	0.000	0.000	0.000
8	5	0.302	0.238	0.378	0.276	0.331	0.000	0.000	0.000	0.000	0.000
12	5	0.212	0.149	0.289	0.176	0.238	0.000	0.000	0.000	0.000	0.000
16	5	0.138	0.086	0.200	0.111	0.161	0.000	0.000	0.000	0.000	0.000
20	5	0.084	0.037	0.137	0.064	0.101	0.000	0.000	0.000	0.000	0.000
24	5	0.051	0.019	0.091	0.037	0.066	0.001	0.000	0.010	0.000	0.000
28	5	0.033	0.000	0.073	0.019	0.046	0.001	0.000	0.011	0.000	0.000
32	5	0.019	0.000	0.047	0.009	0.029	0.003	0.000	0.018	0.000	0.009
36	5	0.013	0.000	0.038	0.000	0.020	0.005	0.000	0.020	0.000	0.010
40	5	0.008	0.000	0.023	0.000	0.011	0.008	0.000	0.021	0.000	0.011
44	5	0.005	0.000	0.020	0.000	0.010	0.013	0.000	0.033	0.000	0.019
48	5	0.004	0.000	0.019	0.000	0.009	0.018	0.000	0.044	0.009	0.028
52	5	0.002	0.000	0.011	0.000	0.000	0.023	0.000	0.054	0.010	0.032
56	5	0.001	0.000	0.010	0.000	0.000	0.030	0.000	0.066	0.016	0.041
60	5	0.001	0.000	0.010	0.000	0.000	0.038	0.009	0.074	0.025	0.050
64	5	0.001	0.000	0.010	0.000	0.000	0.047	0.010	0.099	0.027	0.062
4	6	0.402	0.327	0.481	0.368	0.435	0.000	0.000	0.000	0.000	0.000
8	6	0.307	0.239	0.386	0.279	0.336	0.000	0.000	0.000	0.000	0.000
12	6	0.224	0.162	0.301	0.194	0.248	0.000	0.000	0.000	0.000	0.000
16	6	0.155	0.102	0.220	0.130	0.180	0.000	0.000	0.000	0.000	0.000

20	6	0.101	0.052	0.159	0.080	0.124	0.000	0.000	0.000	0.000	0.000
24	6	0.066	0.028	0.114	0.048	0.082	0.000	0.000	0.000	0.000	0.000
28	6	0.044	0.010	0.091	0.028	0.057	0.000	0.000	0.000	0.000	0.000
32	6	0.028	0.000	0.064	0.011	0.040	0.001	0.000	0.009	0.000	0.000
36	6	0.018	0.000	0.050	0.009	0.028	0.001	0.000	0.010	0.000	0.000
40	6	0.012	0.000	0.031	0.000	0.020	0.001	0.000	0.010	0.000	0.000
44	6	0.008	0.000	0.025	0.000	0.011	0.003	0.000	0.011	0.000	0.009
48	6	0.006	0.000	0.020	0.000	0.010	0.004	0.000	0.019	0.000	0.009
52	6	0.003	0.000	0.019	0.000	0.009	0.006	0.000	0.021	0.000	0.010
56	6	0.002	0.000	0.011	0.000	0.000	0.009	0.000	0.029	0.000	0.011
60	6	0.002	0.000	0.011	0.000	0.000	0.011	0.000	0.031	0.000	0.019
64	6	0.001	0.000	0.010	0.000	0.000	0.015	0.000	0.044	0.009	0.020
68	6	0.001	0.000	0.010	0.000	0.000	0.019	0.000	0.043	0.010	0.028

Oregon and Washington separately

Table A-8: Performance measures for various protocol options under scenario 1. VpY is visits per year (for two years). PT is the presence threshold: How many visits with presence detections equate to occupancy? PT=0 means that presence detections are not used to determine occupancy.

state	VpY	PT	FO mean	FO 5%	FO 95%	FO 25%	FO 75%	FD mean	FD 5%	FD 95%	FD 25%	FD 75%
OR	1	0	0.252	0.208	0.299	0.233	0.273	0.000	0.000	0.000	0.000	0.000
OR	2	0	0.215	0.169	0.262	0.198	0.233	0.000	0.000	0.000	0.000	0.000
OR	3	0	0.187	0.144	0.229	0.169	0.204	0.000	0.000	0.000	0.000	0.000
OR	4	0	0.153	0.111	0.189	0.136	0.170	0.000	0.000	0.000	0.000	0.000
OR	5	0	0.134	0.098	0.173	0.115	0.152	0.000	0.000	0.000	0.000	0.000
OR	6	0	0.110	0.078	0.153	0.093	0.124	0.000	0.000	0.000	0.000	0.000
OR	7	0	0.094	0.064	0.129	0.082	0.105	0.000	0.000	0.000	0.000	0.000
OR	8	0	0.083	0.051	0.115	0.071	0.095	0.000	0.000	0.000	0.000	0.000
OR	9	0	0.071	0.041	0.102	0.059	0.084	0.000	0.000	0.000	0.000	0.000
OR	10	0	0.062	0.036	0.088	0.048	0.075	0.000	0.000	0.000	0.000	0.000
OR	11	0	0.053	0.028	0.080	0.042	0.064	0.000	0.000	0.000	0.000	0.000
OR	12	0	0.046	0.024	0.074	0.035	0.055	0.000	0.000	0.000	0.000	0.000
OR	13	0	0.042	0.022	0.063	0.033	0.052	0.000	0.000	0.000	0.000	0.000
OR	14	0	0.037	0.018	0.058	0.028	0.045	0.000	0.000	0.000	0.000	0.000
OR	15	0	0.032	0.014	0.054	0.023	0.039	0.000	0.000	0.000	0.000	0.000
OR	16	0	0.028	0.009	0.054	0.019	0.036	0.000	0.000	0.000	0.000	0.000
OR	17	0	0.026	0.009	0.044	0.018	0.032	0.000	0.000	0.000	0.000	0.000
OR	18	0	0.023	0.005	0.041	0.014	0.030	0.000	0.000	0.000	0.000	0.000
OR	19	0	0.020	0.008	0.038	0.014	0.027	0.000	0.000	0.000	0.000	0.000
OR	20	0	0.019	0.005	0.034	0.010	0.025	0.000	0.000	0.000	0.000	0.000
OR	21	0	0.019	0.005	0.035	0.013	0.024	0.000	0.000	0.000	0.000	0.000
OR	22	0	0.015	0.004	0.032	0.009	0.019	0.000	0.000	0.000	0.000	0.000
OR	23	0	0.014	0.000	0.028	0.008	0.019	0.000	0.000	0.000	0.000	0.000
OR	24	0	0.014	0.000	0.027	0.009	0.019	0.000	0.000	0.000	0.000	0.000
OR	25	0	0.013	0.004	0.026	0.009	0.018	0.000	0.000	0.000	0.000	0.000
OR	26	0	0.012	0.000	0.025	0.005	0.017	0.000	0.000	0.000	0.000	0.000
OR	27	0	0.011	0.000	0.023	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	28	0	0.010	0.000	0.024	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	29	0	0.009	0.000	0.023	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	30	0	0.009	0.000	0.020	0.005	0.014	0.000	0.000	0.000	0.000	0.000
WA	1	0	0.267	0.208	0.322	0.244	0.291	0.000	0.000	0.000	0.000	0.000
WA	2	0	0.234	0.181	0.292	0.210	0.257	0.000	0.000	0.000	0.000	0.000
WA	3	0	0.211	0.157	0.269	0.188	0.235	0.000	0.000	0.000	0.000	0.000
WA	4	0	0.181	0.128	0.242	0.156	0.203	0.000	0.000	0.000	0.000	0.000
WA	5	0	0.159	0.114	0.210	0.139	0.177	0.000	0.000	0.000	0.000	0.000
WA	6	0	0.136	0.090	0.189	0.116	0.155	0.000	0.000	0.000	0.000	0.000
WA	7	0	0.121	0.076	0.176	0.099	0.135	0.000	0.000	0.000	0.000	0.000

WA	8	0	0.108	0.064	0.153	0.090	0.126	0.000	0.000	0.000	0.000	0.000
WA	9	0	0.092	0.054	0.142	0.075	0.108	0.000	0.000	0.000	0.000	0.000
WA	10	0	0.083	0.045	0.126	0.066	0.096	0.000	0.000	0.000	0.000	0.000
WA	11	0	0.072	0.039	0.112	0.054	0.085	0.000	0.000	0.000	0.000	0.000
WA	12	0	0.063	0.030	0.103	0.046	0.078	0.000	0.000	0.000	0.000	0.000
WA	13	0	0.056	0.028	0.090	0.043	0.071	0.000	0.000	0.000	0.000	0.000
WA	14	0	0.051	0.023	0.083	0.037	0.063	0.000	0.000	0.000	0.000	0.000
WA	15	0	0.046	0.019	0.082	0.032	0.056	0.000	0.000	0.000	0.000	0.000
WA	16	0	0.042	0.018	0.075	0.028	0.051	0.000	0.000	0.000	0.000	0.000
WA	17	0	0.037	0.013	0.070	0.024	0.048	0.000	0.000	0.000	0.000	0.000
WA	18	0	0.034	0.013	0.068	0.022	0.044	0.000	0.000	0.000	0.000	0.000
WA	19	0	0.031	0.009	0.059	0.019	0.041	0.000	0.000	0.000	0.000	0.000
WA	20	0	0.027	0.008	0.056	0.015	0.035	0.000	0.000	0.000	0.000	0.000
WA	21	0	0.024	0.005	0.047	0.014	0.032	0.000	0.000	0.000	0.000	0.000
WA	22	0	0.022	0.005	0.044	0.013	0.031	0.000	0.000	0.000	0.000	0.000
WA	23	0	0.021	0.005	0.041	0.010	0.029	0.000	0.000	0.000	0.000	0.000
WA	24	0	0.019	0.000	0.042	0.010	0.024	0.000	0.000	0.000	0.000	0.000
WA	25	0	0.018	0.005	0.039	0.009	0.024	0.000	0.000	0.000	0.000	0.000
WA	26	0	0.016	0.004	0.038	0.009	0.020	0.000	0.000	0.000	0.000	0.000
WA	27	0	0.016	0.004	0.034	0.009	0.023	0.000	0.000	0.000	0.000	0.000
WA	28	0	0.014	0.000	0.032	0.005	0.020	0.000	0.000	0.000	0.000	0.000
WA	29	0	0.013	0.000	0.032	0.005	0.019	0.000	0.000	0.000	0.000	0.000
WA	30	0	0.011	0.000	0.027	0.005	0.015	0.000	0.000	0.000	0.000	0.000
OR	1	1	0.186	0.141	0.233	0.167	0.205	0.136	0.065	0.209	0.100	0.167
OR	2	1	0.114	0.077	0.155	0.098	0.129	0.168	0.096	0.247	0.136	0.200
OR	3	1	0.072	0.044	0.105	0.058	0.086	0.206	0.136	0.281	0.178	0.235
OR	4	1	0.045	0.024	0.075	0.032	0.055	0.243	0.168	0.320	0.215	0.271
OR	5	1	0.031	0.010	0.055	0.021	0.040	0.264	0.191	0.334	0.236	0.291
OR	6	1	0.021	0.006	0.040	0.011	0.027	0.298	0.234	0.371	0.265	0.328
OR	7	1	0.017	0.005	0.033	0.011	0.024	0.329	0.252	0.397	0.297	0.361
OR	8	1	0.014	0.000	0.032	0.006	0.019	0.352	0.287	0.408	0.324	0.383
OR	9	1	0.011	0.000	0.025	0.006	0.014	0.374	0.301	0.455	0.343	0.403
OR	10	1	0.009	0.000	0.025	0.000	0.013	0.396	0.324	0.463	0.371	0.424
OR	11	1	0.007	0.000	0.022	0.000	0.013	0.413	0.340	0.481	0.384	0.443
OR	12	1	0.006	0.000	0.020	0.000	0.007	0.429	0.359	0.504	0.401	0.458
OR	13	1	0.006	0.000	0.020	0.000	0.008	0.450	0.375	0.522	0.420	0.483
OR	14	1	0.005	0.000	0.017	0.000	0.008	0.460	0.393	0.532	0.432	0.482
OR	15	1	0.005	0.000	0.016	0.000	0.008	0.474	0.406	0.544	0.446	0.503
OR	16	1	0.005	0.000	0.016	0.000	0.008	0.486	0.419	0.558	0.459	0.516
OR	17	1	0.004	0.000	0.016	0.000	0.008	0.497	0.435	0.567	0.468	0.528
OR	18	1	0.005	0.000	0.017	0.000	0.008	0.509	0.438	0.580	0.479	0.535
OR	19	1	0.004	0.000	0.017	0.000	0.008	0.520	0.456	0.585	0.492	0.546

OR	20	1	0.004	0.000	0.017	0.000	0.008	0.527	0.463	0.591	0.502	0.549
OR	21	1	0.004	0.000	0.018	0.000	0.009	0.536	0.475	0.600	0.505	0.567
OR	22	1	0.003	0.000	0.018	0.000	0.008	0.544	0.480	0.613	0.514	0.569
OR	23	1	0.004	0.000	0.018	0.000	0.009	0.553	0.485	0.621	0.521	0.580
OR	24	1	0.004	0.000	0.017	0.000	0.009	0.561	0.495	0.624	0.535	0.587
OR	25	1	0.004	0.000	0.018	0.000	0.009	0.565	0.500	0.631	0.535	0.591
OR	26	1	0.004	0.000	0.019	0.000	0.010	0.573	0.515	0.634	0.547	0.596
OR	27	1	0.003	0.000	0.020	0.000	0.000	0.577	0.519	0.635	0.552	0.605
OR	28	1	0.002	0.000	0.012	0.000	0.000	0.583	0.525	0.645	0.556	0.606
OR	29	1	0.003	0.000	0.013	0.000	0.010	0.588	0.526	0.649	0.564	0.614
OR	30	1	0.003	0.000	0.014	0.000	0.000	0.593	0.533	0.652	0.570	0.617
WA	1	1	0.194	0.146	0.242	0.173	0.214	0.132	0.048	0.227	0.094	0.169
WA	2	1	0.120	0.076	0.161	0.100	0.141	0.164	0.084	0.244	0.132	0.193
WA	3	1	0.078	0.037	0.118	0.061	0.096	0.200	0.136	0.282	0.171	0.228
WA	4	1	0.050	0.020	0.084	0.036	0.062	0.231	0.151	0.315	0.202	0.261
WA	5	1	0.034	0.015	0.059	0.022	0.044	0.268	0.189	0.346	0.236	0.303
WA	6	1	0.023	0.006	0.045	0.013	0.032	0.293	0.203	0.375	0.254	0.330
WA	7	1	0.018	0.000	0.039	0.010	0.025	0.316	0.244	0.405	0.282	0.351
WA	8	1	0.014	0.000	0.032	0.006	0.019	0.345	0.269	0.416	0.308	0.373
WA	9	1	0.010	0.000	0.026	0.006	0.013	0.365	0.283	0.451	0.333	0.396
WA	10	1	0.008	0.000	0.025	0.000	0.013	0.386	0.298	0.472	0.348	0.423
WA	11	1	0.007	0.000	0.020	0.000	0.013	0.402	0.321	0.493	0.369	0.433
WA	12	1	0.006	0.000	0.021	0.000	0.007	0.423	0.350	0.505	0.393	0.452
WA	13	1	0.005	0.000	0.017	0.000	0.007	0.436	0.356	0.510	0.397	0.471
WA	14	1	0.005	0.000	0.017	0.000	0.008	0.450	0.376	0.533	0.421	0.480
WA	15	1	0.004	0.000	0.016	0.000	0.008	0.465	0.377	0.546	0.438	0.497
WA	16	1	0.003	0.000	0.015	0.000	0.008	0.476	0.391	0.552	0.446	0.512
WA	17	1	0.003	0.000	0.010	0.000	0.008	0.486	0.409	0.562	0.456	0.519
WA	18	1	0.004	0.000	0.017	0.000	0.008	0.502	0.419	0.579	0.476	0.533
WA	19	1	0.003	0.000	0.010	0.000	0.000	0.510	0.440	0.603	0.478	0.537
WA	20	1	0.003	0.000	0.011	0.000	0.002	0.519	0.444	0.604	0.491	0.546
WA	21	1	0.003	0.000	0.015	0.000	0.008	0.528	0.439	0.611	0.497	0.558
WA	22	1	0.003	0.000	0.011	0.000	0.000	0.535	0.450	0.609	0.507	0.560
WA	23	1	0.003	0.000	0.012	0.000	0.000	0.541	0.468	0.622	0.512	0.571
WA	24	1	0.003	0.000	0.018	0.000	0.000	0.547	0.470	0.621	0.519	0.575
WA	25	1	0.003	0.000	0.011	0.000	0.000	0.557	0.476	0.630	0.530	0.587
WA	26	1	0.002	0.000	0.012	0.000	0.000	0.561	0.484	0.639	0.537	0.588
WA	27	1	0.003	0.000	0.013	0.000	0.000	0.568	0.498	0.645	0.541	0.596
WA	28	1	0.002	0.000	0.013	0.000	0.000	0.574	0.493	0.644	0.546	0.607
WA	29	1	0.002	0.000	0.012	0.000	0.000	0.579	0.507	0.656	0.554	0.606
WA	30	1	0.002	0.000	0.013	0.000	0.000	0.585	0.517	0.660	0.554	0.612
OR	1	2	0.246	0.201	0.293	0.227	0.265	0.004	0.000	0.042	0.000	0.000

OR	2	2	0.187	0.145	0.235	0.169	0.204	0.006	0.000	0.029	0.000	0.000
OR	3	2	0.138	0.095	0.179	0.119	0.154	0.013	0.000	0.044	0.000	0.020
OR	4	2	0.094	0.063	0.128	0.079	0.106	0.021	0.000	0.051	0.013	0.031
OR	5	2	0.068	0.042	0.099	0.054	0.082	0.028	0.000	0.061	0.013	0.040
OR	6	2	0.048	0.026	0.073	0.037	0.057	0.039	0.000	0.078	0.024	0.054
OR	7	2	0.037	0.019	0.059	0.027	0.045	0.050	0.013	0.096	0.033	0.066
OR	8	2	0.028	0.009	0.049	0.019	0.036	0.059	0.024	0.110	0.043	0.075
OR	9	2	0.022	0.005	0.043	0.014	0.028	0.075	0.031	0.127	0.055	0.093
OR	10	2	0.018	0.005	0.034	0.010	0.024	0.087	0.043	0.135	0.068	0.109
OR	11	2	0.014	0.004	0.030	0.008	0.020	0.098	0.048	0.153	0.073	0.119
OR	12	2	0.012	0.000	0.025	0.005	0.015	0.112	0.060	0.167	0.086	0.139
OR	13	2	0.011	0.000	0.025	0.005	0.015	0.132	0.075	0.198	0.103	0.153
OR	14	2	0.009	0.000	0.021	0.005	0.014	0.146	0.093	0.216	0.119	0.169
OR	15	2	0.008	0.000	0.021	0.005	0.010	0.161	0.098	0.229	0.132	0.183
OR	16	2	0.007	0.000	0.019	0.000	0.010	0.180	0.116	0.250	0.150	0.212
OR	17	2	0.006	0.000	0.016	0.000	0.010	0.192	0.119	0.265	0.159	0.223
OR	18	2	0.006	0.000	0.016	0.000	0.010	0.205	0.130	0.283	0.175	0.238
OR	19	2	0.005	0.000	0.017	0.000	0.010	0.223	0.156	0.299	0.191	0.252
OR	20	2	0.005	0.000	0.016	0.000	0.007	0.237	0.167	0.318	0.203	0.263
OR	21	2	0.005	0.000	0.012	0.000	0.006	0.249	0.175	0.327	0.215	0.281
OR	22	2	0.004	0.000	0.012	0.000	0.006	0.266	0.189	0.346	0.233	0.301
OR	23	2	0.004	0.000	0.012	0.000	0.006	0.279	0.197	0.352	0.244	0.312
OR	24	2	0.004	0.000	0.012	0.000	0.006	0.295	0.224	0.370	0.264	0.326
OR	25	2	0.004	0.000	0.012	0.000	0.006	0.302	0.223	0.383	0.266	0.336
OR	26	2	0.004	0.000	0.012	0.000	0.006	0.319	0.246	0.396	0.285	0.354
OR	27	2	0.004	0.000	0.013	0.000	0.006	0.329	0.267	0.403	0.297	0.360
OR	28	2	0.004	0.000	0.012	0.000	0.006	0.344	0.263	0.422	0.311	0.380
OR	29	2	0.004	0.000	0.013	0.000	0.006	0.353	0.278	0.434	0.316	0.389
OR	30	2	0.004	0.000	0.013	0.000	0.006	0.361	0.282	0.439	0.324	0.398
WA	1	2	0.259	0.203	0.312	0.237	0.283	0.003	0.000	0.000	0.000	0.000
WA	2	2	0.200	0.151	0.256	0.176	0.226	0.009	0.000	0.037	0.000	0.021
WA	3	2	0.152	0.100	0.208	0.131	0.172	0.014	0.000	0.044	0.000	0.020
WA	4	2	0.108	0.063	0.155	0.090	0.129	0.021	0.000	0.049	0.012	0.030
WA	5	2	0.078	0.044	0.117	0.060	0.093	0.029	0.000	0.065	0.014	0.042
WA	6	2	0.054	0.028	0.092	0.040	0.064	0.038	0.000	0.074	0.022	0.052
WA	7	2	0.040	0.015	0.074	0.027	0.050	0.047	0.012	0.088	0.030	0.061
WA	8	2	0.032	0.010	0.059	0.022	0.042	0.058	0.022	0.106	0.038	0.074
WA	9	2	0.024	0.005	0.045	0.014	0.030	0.069	0.024	0.121	0.050	0.086
WA	10	2	0.019	0.004	0.040	0.010	0.029	0.085	0.034	0.148	0.060	0.107
WA	11	2	0.015	0.005	0.030	0.009	0.021	0.096	0.044	0.160	0.070	0.119
WA	12	2	0.012	0.000	0.028	0.005	0.016	0.115	0.059	0.179	0.093	0.139
WA	13	2	0.010	0.000	0.025	0.005	0.015	0.127	0.071	0.190	0.101	0.152

WA	14	2	0.009	0.000	0.025	0.005	0.015	0.139	0.086	0.198	0.117	0.161
WA	15	2	0.008	0.000	0.021	0.005	0.011	0.157	0.096	0.231	0.128	0.182
WA	16	2	0.007	0.000	0.018	0.000	0.010	0.169	0.105	0.243	0.139	0.196
WA	17	2	0.005	0.000	0.017	0.000	0.010	0.186	0.118	0.265	0.155	0.211
WA	18	2	0.005	0.000	0.016	0.000	0.010	0.201	0.130	0.270	0.168	0.228
WA	19	2	0.004	0.000	0.012	0.000	0.006	0.215	0.144	0.284	0.183	0.244
WA	20	2	0.004	0.000	0.013	0.000	0.006	0.232	0.155	0.321	0.201	0.258
WA	21	2	0.004	0.000	0.016	0.000	0.006	0.250	0.166	0.333	0.219	0.280
WA	22	2	0.004	0.000	0.012	0.000	0.006	0.259	0.170	0.346	0.226	0.289
WA	23	2	0.004	0.000	0.013	0.000	0.006	0.270	0.190	0.348	0.234	0.301
WA	24	2	0.003	0.000	0.012	0.000	0.006	0.281	0.200	0.368	0.248	0.313
WA	25	2	0.003	0.000	0.012	0.000	0.006	0.298	0.205	0.389	0.261	0.338
WA	26	2	0.003	0.000	0.012	0.000	0.006	0.311	0.235	0.396	0.279	0.345
WA	27	2	0.003	0.000	0.012	0.000	0.006	0.321	0.238	0.399	0.290	0.353
WA	28	2	0.003	0.000	0.012	0.000	0.006	0.332	0.246	0.416	0.295	0.367
WA	29	2	0.003	0.000	0.012	0.000	0.006	0.346	0.254	0.435	0.313	0.373
WA	30	2	0.003	0.000	0.013	0.000	0.006	0.355	0.263	0.450	0.317	0.391
OR	1	3	0.252	0.208	0.299	0.233	0.273	0.000	0.000	0.000	0.000	0.000
OR	2	3	0.211	0.165	0.259	0.192	0.230	0.000	0.000	0.000	0.000	0.000
OR	3	3	0.174	0.132	0.216	0.157	0.191	0.000	0.000	0.000	0.000	0.000
OR	4	3	0.129	0.090	0.169	0.114	0.145	0.001	0.000	0.014	0.000	0.000
OR	5	3	0.103	0.071	0.141	0.087	0.117	0.001	0.000	0.015	0.000	0.000
OR	6	3	0.075	0.048	0.109	0.064	0.087	0.002	0.000	0.015	0.000	0.000
OR	7	3	0.060	0.040	0.088	0.048	0.069	0.004	0.000	0.015	0.000	0.000
OR	8	3	0.047	0.021	0.070	0.037	0.057	0.005	0.000	0.024	0.000	0.012
OR	9	3	0.036	0.014	0.057	0.027	0.045	0.008	0.000	0.026	0.000	0.013
OR	10	3	0.031	0.009	0.055	0.023	0.038	0.010	0.000	0.032	0.000	0.014
OR	11	3	0.025	0.009	0.043	0.018	0.032	0.011	0.000	0.034	0.000	0.016
OR	12	3	0.020	0.005	0.037	0.014	0.026	0.015	0.000	0.041	0.000	0.024
OR	13	3	0.017	0.005	0.034	0.010	0.023	0.019	0.000	0.044	0.011	0.027
OR	14	3	0.015	0.000	0.032	0.009	0.020	0.023	0.000	0.060	0.011	0.033
OR	15	3	0.012	0.000	0.025	0.005	0.017	0.026	0.000	0.059	0.012	0.038
OR	16	3	0.011	0.000	0.025	0.005	0.015	0.033	0.000	0.066	0.021	0.046
OR	17	3	0.009	0.000	0.023	0.005	0.014	0.038	0.010	0.079	0.023	0.051
OR	18	3	0.008	0.000	0.019	0.005	0.013	0.041	0.011	0.083	0.024	0.053
OR	19	3	0.007	0.000	0.019	0.000	0.010	0.049	0.012	0.091	0.032	0.062
OR	20	3	0.007	0.000	0.020	0.004	0.010	0.056	0.020	0.106	0.038	0.072
OR	21	3	0.007	0.000	0.018	0.000	0.010	0.062	0.022	0.109	0.041	0.081
OR	22	3	0.006	0.000	0.015	0.000	0.010	0.071	0.027	0.121	0.049	0.091
OR	23	3	0.005	0.000	0.015	0.000	0.009	0.075	0.032	0.126	0.051	0.093
OR	24	3	0.005	0.000	0.014	0.000	0.010	0.085	0.039	0.136	0.065	0.105
OR	25	3	0.005	0.000	0.015	0.000	0.010	0.089	0.041	0.144	0.065	0.110

OR	26	3	0.005	0.000	0.015	0.000	0.005	0.104	0.054	0.165	0.078	0.128
OR	27	3	0.005	0.000	0.014	0.000	0.009	0.110	0.055	0.167	0.088	0.131
OR	28	3	0.005	0.000	0.015	0.000	0.007	0.120	0.065	0.183	0.097	0.142
OR	29	3	0.004	0.000	0.011	0.000	0.005	0.131	0.069	0.198	0.106	0.158
OR	30	3	0.004	0.000	0.015	0.000	0.005	0.136	0.075	0.210	0.108	0.158
WA	1	3	0.267	0.208	0.322	0.244	0.291	0.000	0.000	0.000	0.000	0.000
WA	2	3	0.228	0.171	0.285	0.204	0.249	0.000	0.000	0.000	0.000	0.000
WA	3	3	0.194	0.139	0.253	0.171	0.216	0.000	0.000	0.000	0.000	0.000
WA	4	3	0.151	0.103	0.205	0.128	0.174	0.001	0.000	0.000	0.000	0.000
WA	5	3	0.119	0.078	0.167	0.098	0.137	0.002	0.000	0.016	0.000	0.000
WA	6	3	0.088	0.051	0.136	0.070	0.106	0.002	0.000	0.015	0.000	0.000
WA	7	3	0.070	0.031	0.113	0.054	0.085	0.003	0.000	0.014	0.000	0.000
WA	8	3	0.056	0.025	0.090	0.041	0.069	0.004	0.000	0.016	0.000	0.011
WA	9	3	0.043	0.017	0.074	0.029	0.054	0.006	0.000	0.023	0.000	0.012
WA	10	3	0.035	0.014	0.066	0.023	0.045	0.008	0.000	0.026	0.000	0.013
WA	11	3	0.027	0.009	0.051	0.018	0.035	0.011	0.000	0.031	0.000	0.013
WA	12	3	0.022	0.005	0.046	0.014	0.029	0.016	0.000	0.045	0.000	0.024
WA	13	3	0.018	0.005	0.038	0.010	0.024	0.017	0.000	0.044	0.009	0.025
WA	14	3	0.016	0.000	0.032	0.009	0.021	0.023	0.000	0.051	0.011	0.033
WA	15	3	0.014	0.000	0.030	0.009	0.020	0.024	0.000	0.055	0.011	0.035
WA	16	3	0.012	0.000	0.027	0.005	0.015	0.030	0.000	0.066	0.012	0.043
WA	17	3	0.010	0.000	0.025	0.005	0.014	0.034	0.009	0.075	0.021	0.044
WA	18	3	0.009	0.000	0.023	0.005	0.014	0.043	0.010	0.081	0.028	0.058
WA	19	3	0.008	0.000	0.021	0.004	0.010	0.048	0.012	0.080	0.031	0.063
WA	20	3	0.007	0.000	0.017	0.004	0.010	0.057	0.019	0.102	0.036	0.073
WA	21	3	0.006	0.000	0.019	0.000	0.010	0.065	0.024	0.120	0.047	0.082
WA	22	3	0.006	0.000	0.015	0.000	0.010	0.066	0.021	0.117	0.044	0.083
WA	23	3	0.005	0.000	0.015	0.000	0.010	0.077	0.036	0.127	0.057	0.090
WA	24	3	0.005	0.000	0.015	0.000	0.009	0.082	0.035	0.133	0.058	0.100
WA	25	3	0.004	0.000	0.015	0.000	0.005	0.090	0.034	0.154	0.061	0.119
WA	26	3	0.004	0.000	0.014	0.000	0.005	0.099	0.045	0.159	0.077	0.120
WA	27	3	0.004	0.000	0.015	0.000	0.005	0.109	0.051	0.172	0.082	0.135
WA	28	3	0.004	0.000	0.011	0.000	0.005	0.116	0.061	0.188	0.090	0.136
WA	29	3	0.003	0.000	0.011	0.000	0.005	0.123	0.068	0.189	0.095	0.149
WA	30	3	0.003	0.000	0.011	0.000	0.005	0.136	0.075	0.202	0.109	0.160
OR	1	4	0.252	0.208	0.299	0.233	0.273	0.000	0.000	0.000	0.000	0.000
OR	2	4	0.215	0.169	0.262	0.197	0.233	0.000	0.000	0.000	0.000	0.000
OR	3	4	0.184	0.140	0.226	0.166	0.202	0.000	0.000	0.000	0.000	0.000
OR	4	4	0.146	0.106	0.186	0.130	0.163	0.000	0.000	0.000	0.000	0.000
OR	5	4	0.123	0.086	0.164	0.104	0.141	0.000	0.000	0.000	0.000	0.000
OR	6	4	0.094	0.064	0.133	0.079	0.107	0.000	0.000	0.000	0.000	0.000
OR	7	4	0.076	0.050	0.108	0.064	0.087	0.000	0.000	0.000	0.000	0.000

OR	8	4	0.063	0.035	0.091	0.051	0.074	0.000	0.000	0.000	0.000	0.000
OR	9	4	0.051	0.026	0.080	0.040	0.061	0.001	0.000	0.000	0.000	0.000
OR	10	4	0.042	0.019	0.070	0.032	0.052	0.001	0.000	0.001	0.000	0.000
OR	11	4	0.034	0.014	0.057	0.026	0.042	0.001	0.000	0.012	0.000	0.000
OR	12	4	0.028	0.010	0.050	0.019	0.035	0.001	0.000	0.012	0.000	0.000
OR	13	4	0.025	0.009	0.045	0.018	0.032	0.002	0.000	0.013	0.000	0.000
OR	14	4	0.021	0.005	0.037	0.014	0.027	0.003	0.000	0.014	0.000	0.000
OR	15	4	0.017	0.005	0.032	0.010	0.023	0.002	0.000	0.013	0.000	0.000
OR	16	4	0.015	0.000	0.032	0.009	0.020	0.004	0.000	0.020	0.000	0.011
OR	17	4	0.013	0.000	0.028	0.005	0.019	0.005	0.000	0.015	0.000	0.011
OR	18	4	0.012	0.000	0.025	0.005	0.017	0.006	0.000	0.022	0.000	0.011
OR	19	4	0.010	0.000	0.023	0.005	0.014	0.007	0.000	0.024	0.000	0.012
OR	20	4	0.010	0.000	0.023	0.005	0.014	0.008	0.000	0.031	0.000	0.012
OR	21	4	0.009	0.000	0.020	0.005	0.014	0.011	0.000	0.033	0.000	0.013
OR	22	4	0.007	0.000	0.020	0.000	0.010	0.011	0.000	0.033	0.000	0.015
OR	23	4	0.007	0.000	0.019	0.000	0.010	0.013	0.000	0.037	0.000	0.023
OR	24	4	0.007	0.000	0.019	0.000	0.010	0.017	0.000	0.047	0.007	0.024
OR	25	4	0.006	0.000	0.018	0.000	0.010	0.016	0.000	0.041	0.010	0.024
OR	26	4	0.006	0.000	0.015	0.000	0.009	0.021	0.000	0.055	0.010	0.032
OR	27	4	0.005	0.000	0.014	0.000	0.009	0.024	0.000	0.054	0.011	0.033
OR	28	4	0.005	0.000	0.016	0.000	0.009	0.027	0.000	0.056	0.012	0.043
OR	29	4	0.005	0.000	0.014	0.000	0.009	0.029	0.000	0.067	0.013	0.042
OR	30	4	0.005	0.000	0.014	0.000	0.009	0.033	0.000	0.071	0.020	0.045
WA	1	4	0.267	0.208	0.322	0.244	0.291	0.000	0.000	0.000	0.000	0.000
WA	2	4	0.234	0.181	0.292	0.209	0.257	0.000	0.000	0.000	0.000	0.000
WA	3	4	0.208	0.155	0.266	0.185	0.230	0.000	0.000	0.000	0.000	0.000
WA	4	4	0.171	0.120	0.231	0.148	0.194	0.000	0.000	0.000	0.000	0.000
WA	5	4	0.144	0.100	0.192	0.122	0.163	0.000	0.000	0.000	0.000	0.000
WA	6	4	0.113	0.075	0.168	0.092	0.133	0.000	0.000	0.000	0.000	0.000
WA	7	4	0.093	0.051	0.145	0.073	0.109	0.000	0.000	0.000	0.000	0.000
WA	8	4	0.077	0.040	0.120	0.059	0.094	0.000	0.000	0.000	0.000	0.000
WA	9	4	0.060	0.027	0.097	0.044	0.073	0.000	0.000	0.000	0.000	0.000
WA	10	4	0.050	0.023	0.084	0.037	0.062	0.001	0.000	0.011	0.000	0.000
WA	11	4	0.040	0.017	0.073	0.027	0.049	0.001	0.000	0.012	0.000	0.000
WA	12	4	0.033	0.009	0.063	0.022	0.042	0.001	0.000	0.011	0.000	0.000
WA	13	4	0.027	0.009	0.048	0.018	0.036	0.002	0.000	0.013	0.000	0.000
WA	14	4	0.024	0.005	0.046	0.014	0.033	0.003	0.000	0.013	0.000	0.000
WA	15	4	0.020	0.004	0.044	0.010	0.028	0.003	0.000	0.012	0.000	0.000
WA	16	4	0.018	0.004	0.039	0.010	0.024	0.004	0.000	0.014	0.000	0.010
WA	17	4	0.015	0.000	0.034	0.009	0.019	0.004	0.000	0.014	0.000	0.010
WA	18	4	0.014	0.000	0.031	0.009	0.019	0.006	0.000	0.023	0.000	0.011
WA	19	4	0.012	0.000	0.030	0.005	0.015	0.007	0.000	0.023	0.000	0.011

WA	20	4	0.010	0.000	0.024	0.005	0.014	0.009	0.000	0.026	0.000	0.015
WA	21	4	0.008	0.000	0.021	0.004	0.012	0.010	0.000	0.032	0.000	0.013
WA	22	4	0.009	0.000	0.024	0.004	0.014	0.010	0.000	0.026	0.000	0.013
WA	23	4	0.008	0.000	0.023	0.004	0.013	0.014	0.000	0.033	0.000	0.022
WA	24	4	0.007	0.000	0.021	0.000	0.010	0.016	0.000	0.040	0.009	0.022
WA	25	4	0.007	0.000	0.019	0.000	0.010	0.017	0.000	0.049	0.000	0.025
WA	26	4	0.006	0.000	0.019	0.000	0.010	0.018	0.000	0.046	0.010	0.025
WA	27	4	0.005	0.000	0.017	0.000	0.009	0.024	0.000	0.059	0.011	0.034
WA	28	4	0.005	0.000	0.015	0.000	0.009	0.025	0.000	0.062	0.011	0.036
WA	29	4	0.005	0.000	0.014	0.000	0.009	0.030	0.000	0.069	0.012	0.043
WA	30	4	0.005	0.000	0.015	0.000	0.005	0.033	0.000	0.073	0.020	0.044
OR	1	5	0.252	0.208	0.299	0.233	0.273	0.000	0.000	0.000	0.000	0.000
OR	2	5	0.215	0.169	0.262	0.198	0.233	0.000	0.000	0.000	0.000	0.000
OR	3	5	0.187	0.143	0.229	0.168	0.204	0.000	0.000	0.000	0.000	0.000
OR	4	5	0.151	0.111	0.188	0.135	0.169	0.000	0.000	0.000	0.000	0.000
OR	5	5	0.131	0.095	0.171	0.112	0.150	0.000	0.000	0.000	0.000	0.000
OR	6	5	0.104	0.074	0.146	0.087	0.118	0.000	0.000	0.000	0.000	0.000
OR	7	5	0.086	0.056	0.118	0.074	0.099	0.000	0.000	0.000	0.000	0.000
OR	8	5	0.073	0.040	0.104	0.061	0.085	0.000	0.000	0.000	0.000	0.000
OR	9	5	0.060	0.032	0.091	0.048	0.074	0.000	0.000	0.000	0.000	0.000
OR	10	5	0.050	0.026	0.076	0.040	0.061	0.000	0.000	0.000	0.000	0.000
OR	11	5	0.042	0.018	0.069	0.032	0.050	0.000	0.000	0.000	0.000	0.000
OR	12	5	0.035	0.014	0.055	0.026	0.043	0.000	0.000	0.000	0.000	0.000
OR	13	5	0.031	0.013	0.053	0.022	0.039	0.000	0.000	0.000	0.000	0.000
OR	14	5	0.025	0.009	0.045	0.017	0.032	0.000	0.000	0.000	0.000	0.000
OR	15	5	0.022	0.009	0.040	0.014	0.028	0.000	0.000	0.000	0.000	0.000
OR	16	5	0.019	0.005	0.037	0.009	0.027	0.000	0.000	0.000	0.000	0.000
OR	17	5	0.017	0.005	0.032	0.009	0.022	0.001	0.000	0.010	0.000	0.000
OR	18	5	0.015	0.000	0.032	0.009	0.020	0.001	0.000	0.010	0.000	0.000
OR	19	5	0.013	0.000	0.028	0.005	0.019	0.001	0.000	0.012	0.000	0.000
OR	20	5	0.012	0.000	0.027	0.005	0.018	0.000	0.000	0.000	0.000	0.000
OR	21	5	0.012	0.000	0.025	0.005	0.016	0.001	0.000	0.012	0.000	0.000
OR	22	5	0.010	0.000	0.024	0.005	0.014	0.001	0.000	0.012	0.000	0.000
OR	23	5	0.009	0.000	0.020	0.005	0.014	0.001	0.000	0.011	0.000	0.000
OR	24	5	0.008	0.000	0.019	0.005	0.014	0.002	0.000	0.013	0.000	0.000
OR	25	5	0.008	0.000	0.019	0.005	0.010	0.002	0.000	0.012	0.000	0.000
OR	26	5	0.007	0.000	0.019	0.004	0.010	0.004	0.000	0.021	0.000	0.010
OR	27	5	0.007	0.000	0.015	0.003	0.010	0.003	0.000	0.014	0.000	0.000
OR	28	5	0.006	0.000	0.019	0.000	0.010	0.004	0.000	0.022	0.000	0.010
OR	29	5	0.006	0.000	0.018	0.000	0.009	0.006	0.000	0.024	0.000	0.011
OR	30	5	0.006	0.000	0.015	0.000	0.009	0.006	0.000	0.024	0.000	0.011
WA	1	5	0.267	0.208	0.322	0.244	0.291	0.000	0.000	0.000	0.000	0.000

WA	2	5	0.234	0.181	0.292	0.210	0.257	0.000	0.000	0.000	0.000	0.000
WA	3	5	0.211	0.157	0.269	0.188	0.234	0.000	0.000	0.000	0.000	0.000
WA	4	5	0.179	0.127	0.239	0.154	0.200	0.000	0.000	0.000	0.000	0.000
WA	5	5	0.155	0.111	0.205	0.134	0.173	0.000	0.000	0.000	0.000	0.000
WA	6	5	0.127	0.083	0.180	0.107	0.145	0.000	0.000	0.000	0.000	0.000
WA	7	5	0.108	0.064	0.162	0.087	0.123	0.000	0.000	0.000	0.000	0.000
WA	8	5	0.092	0.050	0.135	0.073	0.110	0.000	0.000	0.000	0.000	0.000
WA	9	5	0.074	0.041	0.117	0.057	0.087	0.000	0.000	0.000	0.000	0.000
WA	10	5	0.062	0.029	0.097	0.046	0.077	0.000	0.000	0.000	0.000	0.000
WA	11	5	0.051	0.024	0.087	0.037	0.062	0.000	0.000	0.000	0.000	0.000
WA	12	5	0.042	0.017	0.074	0.028	0.054	0.000	0.000	0.000	0.000	0.000
WA	13	5	0.036	0.013	0.064	0.024	0.046	0.000	0.000	0.000	0.000	0.000
WA	14	5	0.032	0.009	0.061	0.022	0.041	0.000	0.000	0.000	0.000	0.000
WA	15	5	0.027	0.009	0.052	0.018	0.034	0.000	0.000	0.000	0.000	0.000
WA	16	5	0.024	0.005	0.047	0.014	0.031	0.000	0.000	0.000	0.000	0.000
WA	17	5	0.020	0.005	0.043	0.013	0.026	0.000	0.000	0.000	0.000	0.000
WA	18	5	0.019	0.004	0.037	0.010	0.026	0.000	0.000	0.000	0.000	0.000
WA	19	5	0.016	0.000	0.036	0.009	0.022	0.000	0.000	0.000	0.000	0.000
WA	20	5	0.013	0.000	0.030	0.005	0.019	0.001	0.000	0.011	0.000	0.000
WA	21	5	0.011	0.000	0.028	0.005	0.015	0.001	0.000	0.010	0.000	0.000
WA	22	5	0.011	0.000	0.027	0.005	0.016	0.001	0.000	0.011	0.000	0.000
WA	23	5	0.010	0.000	0.025	0.005	0.014	0.002	0.000	0.013	0.000	0.000
WA	24	5	0.009	0.000	0.026	0.005	0.013	0.002	0.000	0.012	0.000	0.000
WA	25	5	0.009	0.000	0.023	0.005	0.014	0.002	0.000	0.012	0.000	0.000
WA	26	5	0.008	0.000	0.020	0.004	0.010	0.004	0.000	0.013	0.000	0.010
WA	27	5	0.007	0.000	0.022	0.003	0.010	0.004	0.000	0.014	0.000	0.010
WA	28	5	0.007	0.000	0.019	0.000	0.010	0.004	0.000	0.014	0.000	0.010
WA	29	5	0.006	0.000	0.015	0.000	0.010	0.005	0.000	0.022	0.000	0.011
WA	30	5	0.006	0.000	0.019	0.000	0.009	0.006	0.000	0.021	0.000	0.011
OR	1	6	0.252	0.208	0.299	0.233	0.273	0.000	0.000	0.000	0.000	0.000
OR	2	6	0.215	0.169	0.262	0.198	0.233	0.000	0.000	0.000	0.000	0.000
OR	3	6	0.187	0.144	0.229	0.169	0.204	0.000	0.000	0.000	0.000	0.000
OR	4	6	0.153	0.111	0.189	0.136	0.169	0.000	0.000	0.000	0.000	0.000
OR	5	6	0.133	0.095	0.173	0.115	0.151	0.000	0.000	0.000	0.000	0.000
OR	6	6	0.108	0.077	0.149	0.090	0.123	0.000	0.000	0.000	0.000	0.000
OR	7	6	0.091	0.060	0.124	0.079	0.102	0.000	0.000	0.000	0.000	0.000
OR	8	6	0.078	0.047	0.109	0.066	0.091	0.000	0.000	0.000	0.000	0.000
OR	9	6	0.067	0.036	0.097	0.053	0.079	0.000	0.000	0.000	0.000	0.000
OR	10	6	0.056	0.031	0.083	0.044	0.068	0.000	0.000	0.000	0.000	0.000
OR	11	6	0.047	0.023	0.072	0.036	0.057	0.000	0.000	0.000	0.000	0.000
OR	12	6	0.039	0.018	0.063	0.030	0.048	0.000	0.000	0.000	0.000	0.000
OR	13	6	0.035	0.017	0.055	0.026	0.044	0.000	0.000	0.000	0.000	0.000

OR	14	6	0.030	0.010	0.050	0.023	0.037	0.000	0.000	0.000	0.000	0.000
OR	15	6	0.025	0.009	0.043	0.018	0.032	0.000	0.000	0.000	0.000	0.000
OR	16	6	0.022	0.005	0.045	0.014	0.029	0.000	0.000	0.000	0.000	0.000
OR	17	6	0.020	0.005	0.036	0.013	0.025	0.000	0.000	0.000	0.000	0.000
OR	18	6	0.017	0.004	0.034	0.009	0.024	0.000	0.000	0.000	0.000	0.000
OR	19	6	0.015	0.005	0.031	0.009	0.022	0.000	0.000	0.000	0.000	0.000
OR	20	6	0.014	0.000	0.030	0.009	0.019	0.000	0.000	0.000	0.000	0.000
OR	21	6	0.014	0.000	0.028	0.009	0.019	0.000	0.000	0.000	0.000	0.000
OR	22	6	0.011	0.000	0.028	0.005	0.018	0.000	0.000	0.000	0.000	0.000
OR	23	6	0.010	0.000	0.024	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	24	6	0.010	0.000	0.023	0.005	0.015	0.000	0.000	0.000	0.000	0.000
OR	25	6	0.009	0.000	0.020	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	26	6	0.009	0.000	0.023	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	27	6	0.007	0.000	0.018	0.004	0.010	0.000	0.000	0.000	0.000	0.000
OR	28	6	0.007	0.000	0.019	0.003	0.010	0.001	0.000	0.000	0.000	0.000
OR	29	6	0.007	0.000	0.019	0.003	0.010	0.001	0.000	0.011	0.000	0.000
OR	30	6	0.006	0.000	0.015	0.000	0.010	0.001	0.000	0.011	0.000	0.000
WA	1	6	0.267	0.208	0.322	0.244	0.291	0.000	0.000	0.000	0.000	0.000
WA	2	6	0.234	0.181	0.292	0.210	0.257	0.000	0.000	0.000	0.000	0.000
WA	3	6	0.211	0.157	0.269	0.188	0.234	0.000	0.000	0.000	0.000	0.000
WA	4	6	0.181	0.128	0.242	0.155	0.202	0.000	0.000	0.000	0.000	0.000
WA	5	6	0.158	0.114	0.210	0.138	0.177	0.000	0.000	0.000	0.000	0.000
WA	6	6	0.133	0.088	0.186	0.112	0.152	0.000	0.000	0.000	0.000	0.000
WA	7	6	0.116	0.071	0.171	0.096	0.131	0.000	0.000	0.000	0.000	0.000
WA	8	6	0.100	0.056	0.144	0.082	0.117	0.000	0.000	0.000	0.000	0.000
WA	9	6	0.083	0.048	0.129	0.066	0.097	0.000	0.000	0.000	0.000	0.000
WA	10	6	0.072	0.037	0.114	0.056	0.084	0.000	0.000	0.000	0.000	0.000
WA	11	6	0.059	0.030	0.100	0.044	0.070	0.000	0.000	0.000	0.000	0.000
WA	12	6	0.050	0.018	0.087	0.035	0.063	0.000	0.000	0.000	0.000	0.000
WA	13	6	0.043	0.018	0.071	0.028	0.054	0.000	0.000	0.000	0.000	0.000
WA	14	6	0.038	0.014	0.068	0.027	0.047	0.000	0.000	0.000	0.000	0.000
WA	15	6	0.032	0.009	0.061	0.022	0.042	0.000	0.000	0.000	0.000	0.000
WA	16	6	0.029	0.009	0.055	0.019	0.036	0.000	0.000	0.000	0.000	0.000
WA	17	6	0.025	0.005	0.053	0.014	0.032	0.000	0.000	0.000	0.000	0.000
WA	18	6	0.022	0.005	0.043	0.014	0.030	0.000	0.000	0.000	0.000	0.000
WA	19	6	0.020	0.004	0.044	0.010	0.027	0.000	0.000	0.000	0.000	0.000
WA	20	6	0.016	0.004	0.034	0.009	0.023	0.000	0.000	0.000	0.000	0.000
WA	21	6	0.014	0.000	0.036	0.009	0.019	0.000	0.000	0.000	0.000	0.000
WA	22	6	0.014	0.000	0.034	0.005	0.019	0.000	0.000	0.000	0.000	0.000
WA	23	6	0.012	0.000	0.029	0.005	0.018	0.000	0.000	0.000	0.000	0.000
WA	24	6	0.011	0.000	0.028	0.005	0.015	0.000	0.000	0.000	0.000	0.000
WA	25	6	0.011	0.000	0.026	0.005	0.015	0.000	0.000	0.000	0.000	0.000

WA	26	6	0.009	0.000	0.025	0.005	0.014	0.001	0.000	0.000	0.000	0.000
WA	27	6	0.009	0.000	0.024	0.005	0.013	0.000	0.000	0.000	0.000	0.000
WA	28	6	0.008	0.000	0.023	0.003	0.013	0.001	0.000	0.010	0.000	0.000
WA	29	6	0.007	0.000	0.020	0.004	0.010	0.001	0.000	0.000	0.000	0.000
WA	30	6	0.007	0.000	0.019	0.000	0.010	0.001	0.000	0.009	0.000	0.000

Table A-9: Performance measures for various protocol options under scenario 2. VpY is visits per year (for two years). PT is the presence threshold: How many visits with presence detections equate to occupancy? PT=0 means that presence detections are not used to determine occupancy.

state	VpY	PT	FO mean	FO 5%	FO 95%	FO 25%	FO 75%	FD mean	FD 5%	FD 95%	FD 25%	FD 75%
OR	1	0	0.252	0.204	0.297	0.232	0.274	0.000	0.000	0.000	0.000	0.000
OR	2	0	0.217	0.175	0.261	0.197	0.233	0.000	0.000	0.000	0.000	0.000
OR	3	0	0.185	0.140	0.231	0.168	0.202	0.000	0.000	0.000	0.000	0.000
OR	4	0	0.155	0.118	0.198	0.137	0.170	0.000	0.000	0.000	0.000	0.000
OR	5	0	0.131	0.099	0.170	0.115	0.146	0.000	0.000	0.000	0.000	0.000
OR	6	0	0.110	0.074	0.151	0.094	0.123	0.000	0.000	0.000	0.000	0.000
OR	7	0	0.093	0.057	0.129	0.078	0.107	0.000	0.000	0.000	0.000	0.000
OR	8	0	0.079	0.049	0.114	0.063	0.091	0.000	0.000	0.000	0.000	0.000
OR	9	0	0.067	0.041	0.100	0.054	0.079	0.000	0.000	0.000	0.000	0.000
OR	10	0	0.057	0.031	0.085	0.044	0.069	0.000	0.000	0.000	0.000	0.000
OR	11	0	0.049	0.026	0.076	0.038	0.061	0.000	0.000	0.000	0.000	0.000
OR	12	0	0.044	0.021	0.068	0.033	0.054	0.000	0.000	0.000	0.000	0.000
OR	13	0	0.037	0.017	0.065	0.027	0.047	0.000	0.000	0.000	0.000	0.000
OR	14	0	0.032	0.013	0.057	0.023	0.040	0.000	0.000	0.000	0.000	0.000
OR	15	0	0.027	0.009	0.049	0.018	0.035	0.000	0.000	0.000	0.000	0.000
OR	16	0	0.024	0.009	0.047	0.018	0.031	0.000	0.000	0.000	0.000	0.000
OR	17	0	0.022	0.008	0.040	0.014	0.027	0.000	0.000	0.000	0.000	0.000
OR	18	0	0.018	0.005	0.034	0.013	0.023	0.000	0.000	0.000	0.000	0.000
OR	19	0	0.017	0.004	0.032	0.010	0.023	0.000	0.000	0.000	0.000	0.000
OR	20	0	0.015	0.004	0.034	0.009	0.019	0.000	0.000	0.000	0.000	0.000
OR	21	0	0.014	0.004	0.032	0.009	0.019	0.000	0.000	0.000	0.000	0.000
OR	22	0	0.012	0.000	0.027	0.005	0.015	0.000	0.000	0.000	0.000	0.000
OR	23	0	0.011	0.000	0.023	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	24	0	0.009	0.000	0.020	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	25	0	0.009	0.000	0.020	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	26	0	0.007	0.000	0.016	0.004	0.010	0.000	0.000	0.000	0.000	0.000
OR	27	0	0.007	0.000	0.018	0.004	0.010	0.000	0.000	0.000	0.000	0.000
OR	28	0	0.006	0.000	0.015	0.000	0.009	0.000	0.000	0.000	0.000	0.000
OR	29	0	0.006	0.000	0.015	0.000	0.009	0.000	0.000	0.000	0.000	0.000
OR	30	0	0.005	0.000	0.015	0.000	0.009	0.000	0.000	0.000	0.000	0.000
WA	1	0	0.267	0.213	0.329	0.241	0.289	0.000	0.000	0.000	0.000	0.000
WA	2	0	0.231	0.172	0.291	0.207	0.254	0.000	0.000	0.000	0.000	0.000
WA	3	0	0.210	0.154	0.269	0.186	0.234	0.000	0.000	0.000	0.000	0.000
WA	4	0	0.180	0.122	0.238	0.159	0.203	0.000	0.000	0.000	0.000	0.000
WA	5	0	0.154	0.100	0.216	0.129	0.176	0.000	0.000	0.000	0.000	0.000
WA	6	0	0.137	0.093	0.194	0.117	0.153	0.000	0.000	0.000	0.000	0.000
WA	7	0	0.119	0.075	0.171	0.098	0.133	0.000	0.000	0.000	0.000	0.000
WA	8	0	0.104	0.060	0.157	0.083	0.121	0.000	0.000	0.000	0.000	0.000

WA	9	0	0.090	0.053	0.138	0.072	0.106	0.000	0.000	0.000	0.000	0.000
WA	10	0	0.080	0.042	0.122	0.061	0.097	0.000	0.000	0.000	0.000	0.000
WA	11	0	0.071	0.034	0.110	0.055	0.086	0.000	0.000	0.000	0.000	0.000
WA	12	0	0.063	0.030	0.106	0.048	0.074	0.000	0.000	0.000	0.000	0.000
WA	13	0	0.054	0.023	0.094	0.040	0.064	0.000	0.000	0.000	0.000	0.000
WA	14	0	0.050	0.022	0.085	0.036	0.066	0.000	0.000	0.000	0.000	0.000
WA	15	0	0.042	0.014	0.073	0.030	0.054	0.000	0.000	0.000	0.000	0.000
WA	16	0	0.038	0.014	0.072	0.026	0.047	0.000	0.000	0.000	0.000	0.000
WA	17	0	0.033	0.010	0.059	0.023	0.041	0.000	0.000	0.000	0.000	0.000
WA	18	0	0.030	0.009	0.058	0.019	0.040	0.000	0.000	0.000	0.000	0.000
WA	19	0	0.028	0.009	0.060	0.018	0.037	0.000	0.000	0.000	0.000	0.000
WA	20	0	0.026	0.005	0.051	0.015	0.034	0.000	0.000	0.000	0.000	0.000
WA	21	0	0.022	0.005	0.045	0.013	0.029	0.000	0.000	0.000	0.000	0.000
WA	22	0	0.019	0.005	0.040	0.010	0.026	0.000	0.000	0.000	0.000	0.000
WA	23	0	0.017	0.004	0.035	0.009	0.023	0.000	0.000	0.000	0.000	0.000
WA	24	0	0.016	0.000	0.037	0.009	0.023	0.000	0.000	0.000	0.000	0.000
WA	25	0	0.015	0.000	0.035	0.009	0.022	0.000	0.000	0.000	0.000	0.000
WA	26	0	0.014	0.000	0.035	0.005	0.019	0.000	0.000	0.000	0.000	0.000
WA	27	0	0.012	0.000	0.028	0.005	0.018	0.000	0.000	0.000	0.000	0.000
WA	28	0	0.011	0.000	0.028	0.005	0.015	0.000	0.000	0.000	0.000	0.000
WA	29	0	0.011	0.000	0.027	0.005	0.015	0.000	0.000	0.000	0.000	0.000
WA	30	0	0.010	0.000	0.024	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	1	1	0.186	0.145	0.231	0.166	0.200	0.135	0.064	0.212	0.100	0.164
OR	2	1	0.112	0.075	0.153	0.097	0.125	0.167	0.092	0.236	0.141	0.195
OR	3	1	0.068	0.036	0.099	0.055	0.081	0.201	0.132	0.281	0.169	0.231
OR	4	1	0.043	0.020	0.071	0.031	0.053	0.236	0.164	0.305	0.204	0.268
OR	5	1	0.027	0.011	0.048	0.019	0.034	0.266	0.203	0.330	0.235	0.296
OR	6	1	0.017	0.005	0.033	0.011	0.023	0.298	0.213	0.378	0.271	0.326
OR	7	1	0.013	0.000	0.028	0.006	0.018	0.325	0.250	0.404	0.294	0.357
OR	8	1	0.009	0.000	0.023	0.006	0.013	0.353	0.282	0.433	0.322	0.382
OR	9	1	0.007	0.000	0.019	0.000	0.012	0.371	0.298	0.447	0.335	0.407
OR	10	1	0.005	0.000	0.014	0.000	0.007	0.394	0.320	0.464	0.367	0.422
OR	11	1	0.004	0.000	0.013	0.000	0.007	0.415	0.340	0.490	0.387	0.447
OR	12	1	0.003	0.000	0.008	0.000	0.007	0.431	0.353	0.497	0.403	0.462
OR	13	1	0.003	0.000	0.012	0.000	0.007	0.444	0.377	0.513	0.412	0.475
OR	14	1	0.002	0.000	0.008	0.000	0.000	0.460	0.389	0.528	0.430	0.487
OR	15	1	0.002	0.000	0.008	0.000	0.000	0.473	0.404	0.545	0.445	0.503
OR	16	1	0.001	0.000	0.008	0.000	0.000	0.484	0.414	0.547	0.456	0.516
OR	17	1	0.001	0.000	0.008	0.000	0.000	0.494	0.420	0.566	0.468	0.522
OR	18	1	0.001	0.000	0.008	0.000	0.000	0.507	0.437	0.575	0.478	0.538
OR	19	1	0.001	0.000	0.008	0.000	0.000	0.517	0.452	0.589	0.481	0.547
OR	20	1	0.000	0.000	0.000	0.000	0.000	0.526	0.459	0.601	0.490	0.558

OR	1	2	0.245	0.196	0.287	0.224	0.265	0.003	0.000	0.038	0.000	0.000
OR	2	2	0.186	0.144	0.231	0.170	0.205	0.007	0.000	0.031	0.000	0.000
OR	3	2	0.136	0.099	0.173	0.120	0.149	0.013	0.000	0.046	0.000	0.019
OR	4	2	0.093	0.063	0.131	0.080	0.105	0.020	0.000	0.052	0.000	0.031
OR	5	2	0.065	0.039	0.098	0.053	0.076	0.027	0.000	0.057	0.014	0.038
OR	6	2	0.045	0.022	0.074	0.034	0.056	0.038	0.000	0.073	0.024	0.051
OR	7	2	0.033	0.014	0.057	0.023	0.042	0.048	0.012	0.085	0.033	0.060
OR	8	2	0.024	0.009	0.046	0.014	0.030	0.061	0.022	0.106	0.043	0.077
OR	9	2	0.018	0.005	0.038	0.010	0.024	0.073	0.023	0.128	0.051	0.094
OR	10	2	0.014	0.000	0.025	0.009	0.019	0.088	0.042	0.141	0.066	0.110
OR	11	2	0.011	0.000	0.025	0.005	0.015	0.104	0.051	0.167	0.079	0.127
OR	12	2	0.008	0.000	0.020	0.005	0.011	0.117	0.056	0.174	0.095	0.140
OR	13	2	0.007	0.000	0.016	0.000	0.010	0.130	0.074	0.191	0.105	0.157
OR	14	2	0.005	0.000	0.015	0.000	0.005	0.143	0.081	0.206	0.117	0.168
OR	15	2	0.004	0.000	0.014	0.000	0.005	0.158	0.099	0.221	0.130	0.183
OR	16	2	0.003	0.000	0.011	0.000	0.005	0.177	0.114	0.246	0.151	0.204
OR	17	2	0.003	0.000	0.010	0.000	0.005	0.186	0.121	0.248	0.157	0.212
OR	18	2	0.002	0.000	0.010	0.000	0.005	0.207	0.135	0.279	0.176	0.239
OR	19	2	0.002	0.000	0.010	0.000	0.005	0.221	0.159	0.303	0.189	0.248
OR	20	2	0.002	0.000	0.010	0.000	0.005	0.236	0.161	0.307	0.205	0.264
OR	21	2	0.002	0.000	0.006	0.000	0.001	0.248	0.175	0.328	0.209	0.282
OR	22	2	0.001	0.000	0.006	0.000	0.000	0.266	0.198	0.342	0.238	0.297
OR	23	2	0.001	0.000	0.006	0.000	0.000	0.277	0.202	0.347	0.240	0.309
OR	24	2	0.001	0.000	0.006	0.000	0.000	0.289	0.215	0.365	0.258	0.320
OR	25	2	0.000	0.000	0.005	0.000	0.000	0.302	0.215	0.373	0.268	0.339
OR	26	2	0.000	0.000	0.000	0.000	0.000	0.313	0.227	0.397	0.276	0.350
OR	1	3	0.252	0.204	0.297	0.232	0.274	0.000	0.000	0.000	0.000	0.000
OR	2	3	0.212	0.167	0.259	0.193	0.229	0.000	0.000	0.000	0.000	0.000
OR	3	3	0.172	0.132	0.218	0.158	0.187	0.000	0.000	0.000	0.000	0.000
OR	4	3	0.131	0.098	0.174	0.115	0.146	0.000	0.000	0.000	0.000	0.000
OR	5	3	0.099	0.061	0.139	0.085	0.108	0.002	0.000	0.016	0.000	0.000
OR	6	3	0.074	0.045	0.115	0.061	0.085	0.002	0.000	0.015	0.000	0.000
OR	7	3	0.056	0.029	0.090	0.043	0.066	0.003	0.000	0.014	0.000	0.000
OR	8	3	0.043	0.021	0.071	0.031	0.053	0.004	0.000	0.015	0.000	0.011
OR	9	3	0.032	0.010	0.057	0.022	0.041	0.006	0.000	0.024	0.000	0.012
OR	10	3	0.025	0.009	0.046	0.018	0.033	0.009	0.000	0.027	0.000	0.013
OR	11	3	0.019	0.005	0.038	0.013	0.025	0.013	0.000	0.037	0.000	0.022
OR	12	3	0.016	0.005	0.032	0.009	0.022	0.014	0.000	0.039	0.000	0.023
OR	13	3	0.013	0.004	0.026	0.005	0.019	0.017	0.000	0.041	0.010	0.024
OR	14	3	0.011	0.000	0.025	0.005	0.015	0.023	0.000	0.051	0.011	0.034
OR	15	3	0.008	0.000	0.020	0.005	0.010	0.025	0.000	0.059	0.012	0.035
OR	16	3	0.007	0.000	0.019	0.000	0.010	0.033	0.000	0.066	0.020	0.046

OR	17	3	0.006	0.000	0.015	0.000	0.009	0.035	0.009	0.072	0.020	0.046
OR	18	3	0.005	0.000	0.014	0.000	0.005	0.043	0.011	0.091	0.024	0.056
OR	19	3	0.004	0.000	0.011	0.000	0.009	0.053	0.018	0.094	0.037	0.068
OR	20	3	0.004	0.000	0.010	0.000	0.005	0.056	0.013	0.100	0.039	0.074
OR	21	3	0.003	0.000	0.010	0.000	0.005	0.062	0.024	0.112	0.041	0.079
OR	22	3	0.002	0.000	0.009	0.000	0.005	0.068	0.024	0.124	0.050	0.083
OR	23	3	0.002	0.000	0.010	0.000	0.005	0.079	0.033	0.132	0.058	0.097
OR	24	3	0.002	0.000	0.006	0.000	0.005	0.087	0.038	0.143	0.063	0.108
OR	25	3	0.001	0.000	0.005	0.000	0.000	0.092	0.042	0.152	0.069	0.114
OR	26	3	0.001	0.000	0.005	0.000	0.000	0.100	0.050	0.164	0.075	0.123
OR	27	3	0.001	0.000	0.005	0.000	0.000	0.111	0.055	0.172	0.087	0.134
OR	28	3	0.001	0.000	0.005	0.000	0.000	0.121	0.065	0.189	0.097	0.142
OR	29	3	0.001	0.000	0.005	0.000	0.000	0.127	0.070	0.183	0.105	0.152
OR	30	3	0.001	0.000	0.005	0.000	0.000	0.139	0.078	0.206	0.109	0.167
WA	1	3	0.267	0.213	0.329	0.241	0.289	0.000	0.000	0.000	0.000	0.000
WA	2	3	0.226	0.164	0.288	0.201	0.248	0.000	0.000	0.000	0.000	0.000
WA	3	3	0.193	0.141	0.248	0.171	0.212	0.001	0.000	0.000	0.000	0.000
WA	4	3	0.150	0.090	0.204	0.128	0.170	0.001	0.000	0.016	0.000	0.000
WA	5	3	0.113	0.066	0.165	0.092	0.131	0.001	0.000	0.013	0.000	0.000
WA	6	3	0.089	0.046	0.142	0.072	0.105	0.002	0.000	0.014	0.000	0.000
WA	7	3	0.067	0.033	0.105	0.051	0.081	0.003	0.000	0.016	0.000	0.000
WA	8	3	0.053	0.018	0.091	0.038	0.070	0.005	0.000	0.016	0.000	0.012
WA	9	3	0.040	0.017	0.072	0.027	0.048	0.007	0.000	0.026	0.000	0.013
WA	10	3	0.032	0.009	0.061	0.022	0.041	0.009	0.000	0.029	0.000	0.013
WA	11	3	0.026	0.009	0.052	0.016	0.033	0.013	0.000	0.039	0.000	0.022
WA	12	3	0.019	0.004	0.041	0.009	0.025	0.017	0.000	0.044	0.010	0.024
WA	13	3	0.016	0.004	0.034	0.009	0.020	0.018	0.000	0.049	0.009	0.025
WA	14	3	0.014	0.000	0.031	0.006	0.019	0.022	0.000	0.054	0.011	0.031
WA	15	3	0.011	0.000	0.027	0.005	0.015	0.025	0.000	0.056	0.011	0.037
WA	16	3	0.009	0.000	0.024	0.005	0.014	0.032	0.000	0.065	0.018	0.043
WA	17	3	0.007	0.000	0.019	0.004	0.010	0.035	0.008	0.072	0.020	0.049
WA	18	3	0.006	0.000	0.016	0.000	0.010	0.043	0.010	0.080	0.028	0.056
WA	19	3	0.005	0.000	0.019	0.000	0.009	0.047	0.012	0.085	0.032	0.062
WA	20	3	0.005	0.000	0.014	0.000	0.009	0.054	0.021	0.100	0.034	0.071
WA	21	3	0.004	0.000	0.011	0.000	0.005	0.061	0.022	0.103	0.045	0.076
WA	22	3	0.003	0.000	0.010	0.000	0.005	0.071	0.022	0.130	0.050	0.088
WA	23	3	0.003	0.000	0.010	0.000	0.005	0.075	0.030	0.123	0.052	0.095
WA	24	3	0.002	0.000	0.010	0.000	0.005	0.083	0.031	0.149	0.061	0.105
WA	25	3	0.002	0.000	0.010	0.000	0.005	0.093	0.043	0.158	0.069	0.117
WA	26	3	0.002	0.000	0.010	0.000	0.005	0.099	0.043	0.165	0.075	0.121
WA	27	3	0.001	0.000	0.005	0.000	0.005	0.107	0.047	0.178	0.080	0.132
WA	28	3	0.001	0.000	0.005	0.000	0.005	0.121	0.060	0.189	0.096	0.144

WA	29	3	0.001	0.000	0.005	0.000	0.000	0.130	0.060	0.200	0.101	0.158
WA	30	3	0.001	0.000	0.005	0.000	0.000	0.138	0.067	0.209	0.114	0.158
OR	1	4	0.252	0.204	0.297	0.232	0.274	0.000	0.000	0.000	0.000	0.000
OR	2	4	0.216	0.175	0.261	0.197	0.233	0.000	0.000	0.000	0.000	0.000
OR	3	4	0.183	0.139	0.228	0.167	0.200	0.000	0.000	0.000	0.000	0.000
OR	4	4	0.148	0.111	0.190	0.131	0.162	0.000	0.000	0.000	0.000	0.000
OR	5	4	0.119	0.083	0.160	0.103	0.132	0.000	0.000	0.000	0.000	0.000
OR	6	4	0.093	0.064	0.132	0.079	0.106	0.000	0.000	0.000	0.000	0.000
OR	7	4	0.075	0.043	0.112	0.060	0.087	0.000	0.000	0.000	0.000	0.000
OR	8	4	0.058	0.031	0.089	0.046	0.069	0.000	0.000	0.000	0.000	0.000
OR	9	4	0.045	0.023	0.075	0.035	0.054	0.000	0.000	0.000	0.000	0.000
OR	10	4	0.037	0.018	0.062	0.027	0.046	0.000	0.000	0.000	0.000	0.000
OR	11	4	0.029	0.009	0.054	0.021	0.037	0.001	0.000	0.011	0.000	0.000
OR	12	4	0.024	0.009	0.046	0.015	0.031	0.001	0.000	0.011	0.000	0.000
OR	13	4	0.020	0.005	0.038	0.013	0.026	0.002	0.000	0.012	0.000	0.000
OR	14	4	0.016	0.004	0.033	0.010	0.022	0.002	0.000	0.013	0.000	0.000
OR	15	4	0.013	0.000	0.028	0.009	0.019	0.003	0.000	0.014	0.000	0.000
OR	16	4	0.011	0.000	0.024	0.005	0.014	0.004	0.000	0.020	0.000	0.010
OR	17	4	0.010	0.000	0.022	0.005	0.014	0.005	0.000	0.020	0.000	0.011
OR	18	4	0.008	0.000	0.020	0.004	0.010	0.005	0.000	0.023	0.000	0.011
OR	19	4	0.007	0.000	0.018	0.004	0.010	0.007	0.000	0.024	0.000	0.012
OR	20	4	0.006	0.000	0.019	0.000	0.009	0.009	0.000	0.035	0.000	0.012
OR	21	4	0.005	0.000	0.014	0.000	0.009	0.010	0.000	0.030	0.000	0.013
OR	22	4	0.004	0.000	0.010	0.000	0.005	0.011	0.000	0.026	0.000	0.020
OR	23	4	0.004	0.000	0.014	0.000	0.005	0.014	0.000	0.036	0.000	0.023
OR	24	4	0.003	0.000	0.010	0.000	0.005	0.015	0.000	0.038	0.000	0.023
OR	25	4	0.002	0.000	0.009	0.000	0.005	0.018	0.000	0.049	0.009	0.027
OR	26	4	0.002	0.000	0.009	0.000	0.005	0.021	0.000	0.047	0.011	0.032
OR	27	4	0.002	0.000	0.009	0.000	0.005	0.024	0.000	0.056	0.011	0.033
OR	28	4	0.002	0.000	0.005	0.000	0.005	0.026	0.000	0.055	0.012	0.036
OR	29	4	0.001	0.000	0.005	0.000	0.000	0.031	0.000	0.063	0.020	0.043
OR	30	4	0.001	0.000	0.005	0.000	0.004	0.036	0.000	0.075	0.022	0.048
WA	1	4	0.267	0.213	0.329	0.241	0.289	0.000	0.000	0.000	0.000	0.000
WA	2	4	0.231	0.171	0.291	0.206	0.253	0.000	0.000	0.000	0.000	0.000
WA	3	4	0.207	0.153	0.264	0.184	0.229	0.000	0.000	0.000	0.000	0.000
WA	4	4	0.171	0.115	0.221	0.150	0.193	0.000	0.000	0.000	0.000	0.000
WA	5	4	0.139	0.088	0.199	0.112	0.157	0.000	0.000	0.000	0.000	0.000
WA	6	4	0.115	0.070	0.172	0.096	0.131	0.000	0.000	0.000	0.000	0.000
WA	7	4	0.091	0.050	0.139	0.074	0.105	0.000	0.000	0.000	0.000	0.000
WA	8	4	0.073	0.038	0.122	0.055	0.087	0.000	0.000	0.000	0.000	0.000
WA	9	4	0.059	0.027	0.095	0.044	0.070	0.001	0.000	0.000	0.000	0.000
WA	10	4	0.047	0.018	0.084	0.033	0.059	0.001	0.000	0.000	0.000	0.000

WA	11	4	0.039	0.014	0.072	0.027	0.051	0.001	0.000	0.011	0.000	0.000
WA	12	4	0.031	0.009	0.057	0.019	0.041	0.002	0.000	0.013	0.000	0.000
WA	13	4	0.025	0.005	0.048	0.015	0.032	0.001	0.000	0.012	0.000	0.000
WA	14	4	0.022	0.005	0.043	0.013	0.030	0.002	0.000	0.013	0.000	0.000
WA	15	4	0.017	0.000	0.036	0.009	0.023	0.003	0.000	0.014	0.000	0.000
WA	16	4	0.014	0.004	0.032	0.005	0.020	0.004	0.000	0.014	0.000	0.010
WA	17	4	0.012	0.000	0.028	0.005	0.018	0.005	0.000	0.020	0.000	0.011
WA	18	4	0.011	0.000	0.024	0.005	0.015	0.006	0.000	0.022	0.000	0.012
WA	19	4	0.009	0.000	0.024	0.004	0.014	0.007	0.000	0.023	0.000	0.012
WA	20	4	0.008	0.000	0.020	0.005	0.010	0.009	0.000	0.031	0.000	0.012
WA	21	4	0.007	0.000	0.019	0.000	0.010	0.010	0.000	0.027	0.000	0.014
WA	22	4	0.005	0.000	0.015	0.000	0.009	0.011	0.000	0.034	0.000	0.019
WA	23	4	0.005	0.000	0.015	0.000	0.009	0.012	0.000	0.033	0.000	0.019
WA	24	4	0.004	0.000	0.014	0.000	0.005	0.016	0.000	0.040	0.000	0.023
WA	25	4	0.004	0.000	0.014	0.000	0.005	0.019	0.000	0.046	0.010	0.029
WA	26	4	0.004	0.000	0.014	0.000	0.005	0.020	0.000	0.046	0.010	0.031
WA	27	4	0.003	0.000	0.010	0.000	0.005	0.024	0.000	0.056	0.011	0.034
WA	28	4	0.003	0.000	0.010	0.000	0.005	0.026	0.000	0.058	0.011	0.036
WA	29	4	0.002	0.000	0.009	0.000	0.005	0.030	0.000	0.068	0.014	0.039
WA	30	4	0.002	0.000	0.010	0.000	0.005	0.033	0.009	0.070	0.020	0.044
OR	1	5	0.252	0.204	0.297	0.232	0.274	0.000	0.000	0.000	0.000	0.000
OR	2	5	0.217	0.175	0.261	0.197	0.233	0.000	0.000	0.000	0.000	0.000
OR	3	5	0.185	0.140	0.231	0.168	0.202	0.000	0.000	0.000	0.000	0.000
OR	4	5	0.153	0.118	0.197	0.136	0.168	0.000	0.000	0.000	0.000	0.000
OR	5	5	0.128	0.091	0.169	0.111	0.140	0.000	0.000	0.000	0.000	0.000
OR	6	5	0.103	0.069	0.141	0.087	0.118	0.000	0.000	0.000	0.000	0.000
OR	7	5	0.085	0.050	0.123	0.070	0.100	0.000	0.000	0.000	0.000	0.000
OR	8	5	0.068	0.041	0.101	0.054	0.080	0.000	0.000	0.000	0.000	0.000
OR	9	5	0.056	0.031	0.088	0.043	0.066	0.000	0.000	0.000	0.000	0.000
OR	10	5	0.045	0.023	0.070	0.034	0.055	0.000	0.000	0.000	0.000	0.000
OR	11	5	0.037	0.014	0.061	0.028	0.045	0.000	0.000	0.000	0.000	0.000
OR	12	5	0.031	0.014	0.053	0.023	0.040	0.000	0.000	0.000	0.000	0.000
OR	13	5	0.026	0.009	0.047	0.018	0.032	0.000	0.000	0.000	0.000	0.000
OR	14	5	0.022	0.005	0.043	0.014	0.028	0.000	0.000	0.000	0.000	0.000
OR	15	5	0.018	0.005	0.037	0.010	0.023	0.000	0.000	0.000	0.000	0.000
OR	16	5	0.014	0.004	0.032	0.009	0.019	0.000	0.000	0.000	0.000	0.000
OR	17	5	0.013	0.000	0.029	0.009	0.018	0.000	0.000	0.000	0.000	0.000
OR	18	5	0.011	0.000	0.025	0.005	0.014	0.001	0.000	0.001	0.000	0.000
OR	19	5	0.010	0.000	0.023	0.005	0.014	0.001	0.000	0.012	0.000	0.000
OR	20	5	0.008	0.000	0.020	0.005	0.010	0.001	0.000	0.011	0.000	0.000
OR	21	5	0.007	0.000	0.018	0.000	0.010	0.001	0.000	0.010	0.000	0.000
OR	22	5	0.006	0.000	0.018	0.003	0.009	0.001	0.000	0.012	0.000	0.000

OR	23	5	0.005	0.000	0.015	0.000	0.009	0.002	0.000	0.012	0.000	0.000
OR	24	5	0.005	0.000	0.014	0.000	0.009	0.003	0.000	0.013	0.000	0.000
OR	25	5	0.004	0.000	0.014	0.000	0.005	0.003	0.000	0.013	0.000	0.000
OR	26	5	0.004	0.000	0.010	0.000	0.005	0.003	0.000	0.013	0.000	0.002
OR	27	5	0.003	0.000	0.010	0.000	0.005	0.004	0.000	0.019	0.000	0.011
OR	28	5	0.002	0.000	0.010	0.000	0.005	0.005	0.000	0.014	0.000	0.011
OR	29	5	0.002	0.000	0.009	0.000	0.005	0.006	0.000	0.023	0.000	0.011
OR	30	5	0.002	0.000	0.010	0.000	0.005	0.007	0.000	0.024	0.000	0.011
WA	1	5	0.267	0.213	0.329	0.241	0.289	0.000	0.000	0.000	0.000	0.000
WA	2	5	0.231	0.172	0.291	0.207	0.254	0.000	0.000	0.000	0.000	0.000
WA	3	5	0.210	0.154	0.269	0.186	0.234	0.000	0.000	0.000	0.000	0.000
WA	4	5	0.178	0.119	0.236	0.157	0.202	0.000	0.000	0.000	0.000	0.000
WA	5	5	0.149	0.096	0.214	0.123	0.170	0.000	0.000	0.000	0.000	0.000
WA	6	5	0.129	0.083	0.187	0.108	0.145	0.000	0.000	0.000	0.000	0.000
WA	7	5	0.106	0.066	0.159	0.085	0.122	0.000	0.000	0.000	0.000	0.000
WA	8	5	0.088	0.049	0.139	0.067	0.104	0.000	0.000	0.000	0.000	0.000
WA	9	5	0.072	0.035	0.113	0.056	0.086	0.000	0.000	0.000	0.000	0.000
WA	10	5	0.059	0.027	0.102	0.043	0.073	0.000	0.000	0.000	0.000	0.000
WA	11	5	0.051	0.022	0.084	0.036	0.065	0.000	0.000	0.000	0.000	0.000
WA	12	5	0.041	0.018	0.071	0.029	0.052	0.000	0.000	0.000	0.000	0.000
WA	13	5	0.033	0.009	0.061	0.023	0.043	0.000	0.000	0.000	0.000	0.000
WA	14	5	0.030	0.009	0.057	0.019	0.040	0.000	0.000	0.000	0.000	0.000
WA	15	5	0.023	0.005	0.044	0.014	0.031	0.000	0.000	0.000	0.000	0.000
WA	16	5	0.020	0.005	0.044	0.013	0.026	0.001	0.000	0.000	0.000	0.000
WA	17	5	0.017	0.004	0.034	0.009	0.023	0.000	0.000	0.000	0.000	0.000
WA	18	5	0.016	0.004	0.035	0.009	0.021	0.000	0.000	0.000	0.000	0.000
WA	19	5	0.013	0.000	0.030	0.005	0.019	0.001	0.000	0.010	0.000	0.000
WA	20	5	0.012	0.000	0.028	0.005	0.015	0.000	0.000	0.000	0.000	0.000
WA	21	5	0.009	0.000	0.023	0.005	0.013	0.002	0.000	0.012	0.000	0.000
WA	22	5	0.008	0.000	0.020	0.004	0.014	0.001	0.000	0.011	0.000	0.000
WA	23	5	0.007	0.000	0.019	0.000	0.010	0.002	0.000	0.013	0.000	0.000
WA	24	5	0.007	0.000	0.019	0.000	0.010	0.003	0.000	0.012	0.000	0.000
WA	25	5	0.006	0.000	0.018	0.000	0.010	0.003	0.000	0.013	0.000	0.000
WA	26	5	0.005	0.000	0.015	0.000	0.009	0.003	0.000	0.013	0.000	0.009
WA	27	5	0.005	0.000	0.015	0.000	0.009	0.004	0.000	0.014	0.000	0.010
WA	28	5	0.004	0.000	0.014	0.000	0.005	0.004	0.000	0.020	0.000	0.010
WA	29	5	0.004	0.000	0.014	0.000	0.005	0.005	0.000	0.022	0.000	0.011
WA	30	5	0.004	0.000	0.012	0.000	0.005	0.005	0.000	0.020	0.000	0.011
OR	1	6	0.252	0.204	0.297	0.232	0.274	0.000	0.000	0.000	0.000	0.000
OR	2	6	0.217	0.175	0.261	0.197	0.233	0.000	0.000	0.000	0.000	0.000
OR	3	6	0.185	0.140	0.231	0.168	0.202	0.000	0.000	0.000	0.000	0.000
OR	4	6	0.154	0.118	0.198	0.137	0.170	0.000	0.000	0.000	0.000	0.000

OR	5	6	0.130	0.097	0.170	0.114	0.144	0.000	0.000	0.000	0.000	0.000
OR	6	6	0.108	0.072	0.150	0.092	0.121	0.000	0.000	0.000	0.000	0.000
OR	7	6	0.090	0.053	0.127	0.075	0.105	0.000	0.000	0.000	0.000	0.000
OR	8	6	0.075	0.047	0.107	0.058	0.087	0.000	0.000	0.000	0.000	0.000
OR	9	6	0.062	0.033	0.093	0.049	0.073	0.000	0.000	0.000	0.000	0.000
OR	10	6	0.051	0.024	0.079	0.039	0.063	0.000	0.000	0.000	0.000	0.000
OR	11	6	0.042	0.021	0.066	0.032	0.051	0.000	0.000	0.000	0.000	0.000
OR	12	6	0.036	0.017	0.059	0.027	0.045	0.000	0.000	0.000	0.000	0.000
OR	13	6	0.030	0.013	0.054	0.022	0.037	0.000	0.000	0.000	0.000	0.000
OR	14	6	0.026	0.009	0.049	0.018	0.032	0.000	0.000	0.000	0.000	0.000
OR	15	6	0.021	0.005	0.042	0.014	0.027	0.000	0.000	0.000	0.000	0.000
OR	16	6	0.018	0.005	0.035	0.010	0.024	0.000	0.000	0.000	0.000	0.000
OR	17	6	0.015	0.000	0.034	0.009	0.019	0.000	0.000	0.000	0.000	0.000
OR	18	6	0.013	0.000	0.029	0.005	0.018	0.000	0.000	0.000	0.000	0.000
OR	19	6	0.012	0.000	0.025	0.005	0.015	0.000	0.000	0.000	0.000	0.000
OR	20	6	0.010	0.000	0.025	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	21	6	0.009	0.000	0.023	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	22	6	0.008	0.000	0.019	0.005	0.010	0.000	0.000	0.000	0.000	0.000
OR	23	6	0.007	0.000	0.019	0.004	0.009	0.000	0.000	0.000	0.000	0.000
OR	24	6	0.006	0.000	0.015	0.000	0.009	0.000	0.000	0.000	0.000	0.000
OR	25	6	0.005	0.000	0.015	0.000	0.009	0.000	0.000	0.000	0.000	0.000
OR	26	6	0.005	0.000	0.014	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	27	6	0.004	0.000	0.014	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	28	6	0.003	0.000	0.011	0.000	0.005	0.001	0.000	0.010	0.000	0.000
OR	29	6	0.003	0.000	0.010	0.000	0.005	0.001	0.000	0.010	0.000	0.000
OR	30	6	0.003	0.000	0.010	0.000	0.005	0.001	0.000	0.000	0.000	0.000
WA	1	6	0.267	0.213	0.329	0.241	0.289	0.000	0.000	0.000	0.000	0.000
WA	2	6	0.231	0.172	0.291	0.207	0.254	0.000	0.000	0.000	0.000	0.000
WA	3	6	0.210	0.154	0.269	0.186	0.234	0.000	0.000	0.000	0.000	0.000
WA	4	6	0.180	0.121	0.236	0.158	0.203	0.000	0.000	0.000	0.000	0.000
WA	5	6	0.153	0.100	0.216	0.129	0.176	0.000	0.000	0.000	0.000	0.000
WA	6	6	0.135	0.089	0.193	0.114	0.151	0.000	0.000	0.000	0.000	0.000
WA	7	6	0.114	0.071	0.163	0.093	0.129	0.000	0.000	0.000	0.000	0.000
WA	8	6	0.096	0.055	0.148	0.075	0.115	0.000	0.000	0.000	0.000	0.000
WA	9	6	0.081	0.042	0.127	0.064	0.095	0.000	0.000	0.000	0.000	0.000
WA	10	6	0.068	0.034	0.110	0.051	0.083	0.000	0.000	0.000	0.000	0.000
WA	11	6	0.059	0.026	0.096	0.044	0.074	0.000	0.000	0.000	0.000	0.000
WA	12	6	0.050	0.023	0.086	0.036	0.061	0.000	0.000	0.000	0.000	0.000
WA	13	6	0.041	0.015	0.072	0.027	0.052	0.000	0.000	0.000	0.000	0.000
WA	14	6	0.037	0.013	0.066	0.024	0.047	0.000	0.000	0.000	0.000	0.000
WA	15	6	0.029	0.009	0.053	0.018	0.037	0.000	0.000	0.000	0.000	0.000
WA	16	6	0.025	0.009	0.054	0.014	0.032	0.000	0.000	0.000	0.000	0.000

WA	17	6	0.021	0.005	0.043	0.014	0.028	0.000	0.000	0.000	0.000	0.000
WA	18	6	0.019	0.005	0.040	0.010	0.026	0.000	0.000	0.000	0.000	0.000
WA	19	6	0.017	0.004	0.035	0.009	0.023	0.000	0.000	0.000	0.000	0.000
WA	20	6	0.015	0.000	0.036	0.009	0.019	0.000	0.000	0.000	0.000	0.000
WA	21	6	0.012	0.000	0.028	0.005	0.015	0.000	0.000	0.000	0.000	0.000
WA	22	6	0.011	0.000	0.025	0.005	0.015	0.000	0.000	0.000	0.000	0.000
WA	23	6	0.009	0.000	0.023	0.005	0.014	0.000	0.000	0.000	0.000	0.000
WA	24	6	0.009	0.000	0.020	0.004	0.014	0.000	0.000	0.000	0.000	0.000
WA	25	6	0.008	0.000	0.022	0.004	0.010	0.000	0.000	0.000	0.000	0.000
WA	26	6	0.007	0.000	0.019	0.000	0.010	0.001	0.000	0.000	0.000	0.000
WA	27	6	0.006	0.000	0.019	0.000	0.010	0.000	0.000	0.000	0.000	0.000
WA	28	6	0.006	0.000	0.015	0.000	0.009	0.001	0.000	0.010	0.000	0.000
WA	29	6	0.005	0.000	0.018	0.000	0.009	0.001	0.000	0.011	0.000	0.000
WA	30	6	0.005	0.000	0.015	0.000	0.009	0.001	0.000	0.010	0.000	0.000

Table A-10: Performance measures for various protocol options under scenario 3. VpY is visits per year (for two years). PT is the presence threshold: How many visits with presence detections equate to occupancy? PT=0 means that presence detections are not used to determine occupancy.

state	VpY	PT	FO mean	FO 5%	FO 95%	FO 25%	FO 75%	FD mean	FD 5%	FD 95%	FD 25%	FD 75%
OR	1	0	0.252	0.210	0.292	0.235	0.270	0.000	0.000	0.000	0.000	0.000
OR	2	0	0.212	0.169	0.256	0.194	0.231	0.000	0.000	0.000	0.000	0.000
OR	3	0	0.188	0.149	0.229	0.172	0.207	0.000	0.000	0.000	0.000	0.000
OR	4	0	0.152	0.112	0.198	0.132	0.168	0.000	0.000	0.000	0.000	0.000
OR	5	0	0.126	0.092	0.157	0.113	0.141	0.000	0.000	0.000	0.000	0.000
OR	6	0	0.107	0.075	0.143	0.093	0.121	0.000	0.000	0.000	0.000	0.000
OR	7	0	0.092	0.064	0.122	0.081	0.103	0.000	0.000	0.000	0.000	0.000
OR	8	0	0.078	0.049	0.116	0.063	0.091	0.000	0.000	0.000	0.000	0.000
OR	9	0	0.067	0.036	0.101	0.052	0.079	0.000	0.000	0.000	0.000	0.000
OR	10	0	0.056	0.032	0.084	0.043	0.065	0.000	0.000	0.000	0.000	0.000
OR	11	0	0.049	0.023	0.081	0.036	0.058	0.000	0.000	0.000	0.000	0.000
OR	12	0	0.041	0.018	0.064	0.030	0.050	0.000	0.000	0.000	0.000	0.000
OR	13	0	0.035	0.017	0.056	0.027	0.044	0.000	0.000	0.000	0.000	0.000
OR	14	0	0.031	0.013	0.056	0.023	0.038	0.000	0.000	0.000	0.000	0.000
OR	15	0	0.025	0.009	0.045	0.018	0.032	0.000	0.000	0.000	0.000	0.000
OR	16	0	0.023	0.005	0.042	0.014	0.029	0.000	0.000	0.000	0.000	0.000
OR	17	0	0.020	0.005	0.038	0.014	0.027	0.000	0.000	0.000	0.000	0.000
OR	18	0	0.017	0.005	0.034	0.010	0.023	0.000	0.000	0.000	0.000	0.000
OR	19	0	0.015	0.004	0.031	0.009	0.019	0.000	0.000	0.000	0.000	0.000
OR	20	0	0.014	0.004	0.029	0.009	0.019	0.000	0.000	0.000	0.000	0.000
OR	21	0	0.012	0.000	0.028	0.005	0.018	0.000	0.000	0.000	0.000	0.000
OR	22	0	0.010	0.000	0.024	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	23	0	0.009	0.000	0.020	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	24	0	0.008	0.000	0.019	0.004	0.010	0.000	0.000	0.000	0.000	0.000
OR	25	0	0.007	0.000	0.019	0.004	0.010	0.000	0.000	0.000	0.000	0.000
OR	26	0	0.007	0.000	0.018	0.004	0.010	0.000	0.000	0.000	0.000	0.000
OR	27	0	0.006	0.000	0.017	0.003	0.009	0.000	0.000	0.000	0.000	0.000
OR	28	0	0.005	0.000	0.015	0.000	0.009	0.000	0.000	0.000	0.000	0.000
OR	29	0	0.004	0.000	0.014	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	30	0	0.004	0.000	0.010	0.000	0.005	0.000	0.000	0.000	0.000	0.000
WA	1	0	0.267	0.208	0.323	0.244	0.294	0.000	0.000	0.000	0.000	0.000
WA	2	0	0.237	0.182	0.302	0.213	0.259	0.000	0.000	0.000	0.000	0.000
WA	3	0	0.213	0.159	0.276	0.190	0.236	0.000	0.000	0.000	0.000	0.000
WA	4	0	0.181	0.126	0.236	0.157	0.203	0.000	0.000	0.000	0.000	0.000
WA	5	0	0.156	0.103	0.211	0.135	0.174	0.000	0.000	0.000	0.000	0.000
WA	6	0	0.135	0.089	0.190	0.114	0.155	0.000	0.000	0.000	0.000	0.000
WA	7	0	0.118	0.068	0.170	0.098	0.139	0.000	0.000	0.000	0.000	0.000
WA	8	0	0.104	0.062	0.164	0.083	0.118	0.000	0.000	0.000	0.000	0.000

WA	9	0	0.090	0.048	0.133	0.073	0.106	0.000	0.000	0.000	0.000	0.000
WA	10	0	0.079	0.041	0.125	0.061	0.095	0.000	0.000	0.000	0.000	0.000
WA	11	0	0.070	0.035	0.107	0.052	0.088	0.000	0.000	0.000	0.000	0.000
WA	12	0	0.061	0.028	0.094	0.047	0.074	0.000	0.000	0.000	0.000	0.000
WA	13	0	0.054	0.025	0.091	0.039	0.067	0.000	0.000	0.000	0.000	0.000
WA	14	0	0.046	0.018	0.083	0.031	0.058	0.000	0.000	0.000	0.000	0.000
WA	15	0	0.041	0.017	0.072	0.028	0.054	0.000	0.000	0.000	0.000	0.000
WA	16	0	0.036	0.014	0.069	0.023	0.044	0.000	0.000	0.000	0.000	0.000
WA	17	0	0.032	0.010	0.060	0.022	0.041	0.000	0.000	0.000	0.000	0.000
WA	18	0	0.027	0.005	0.059	0.015	0.037	0.000	0.000	0.000	0.000	0.000
WA	19	0	0.026	0.005	0.051	0.015	0.033	0.000	0.000	0.000	0.000	0.000
WA	20	0	0.024	0.005	0.051	0.014	0.031	0.000	0.000	0.000	0.000	0.000
WA	21	0	0.020	0.004	0.043	0.010	0.027	0.000	0.000	0.000	0.000	0.000
WA	22	0	0.019	0.004	0.042	0.010	0.024	0.000	0.000	0.000	0.000	0.000
WA	23	0	0.017	0.000	0.035	0.009	0.023	0.000	0.000	0.000	0.000	0.000
WA	24	0	0.015	0.000	0.034	0.005	0.020	0.000	0.000	0.000	0.000	0.000
WA	25	0	0.013	0.000	0.034	0.005	0.018	0.000	0.000	0.000	0.000	0.000
WA	26	0	0.012	0.000	0.030	0.005	0.018	0.000	0.000	0.000	0.000	0.000
WA	27	0	0.010	0.000	0.025	0.005	0.014	0.000	0.000	0.000	0.000	0.000
WA	28	0	0.010	0.000	0.025	0.005	0.014	0.000	0.000	0.000	0.000	0.000
WA	29	0	0.010	0.000	0.028	0.005	0.014	0.000	0.000	0.000	0.000	0.000
WA	30	0	0.008	0.000	0.023	0.003	0.014	0.000	0.000	0.000	0.000	0.000
OR	1	1	0.186	0.149	0.227	0.171	0.200	0.138	0.056	0.227	0.103	0.173
OR	2	1	0.110	0.076	0.145	0.095	0.126	0.168	0.107	0.241	0.141	0.194
OR	3	1	0.071	0.043	0.104	0.057	0.083	0.204	0.125	0.284	0.171	0.232
OR	4	1	0.041	0.015	0.067	0.029	0.051	0.239	0.169	0.319	0.207	0.270
OR	5	1	0.024	0.006	0.047	0.015	0.033	0.268	0.205	0.337	0.242	0.295
OR	6	1	0.015	0.000	0.031	0.006	0.021	0.299	0.227	0.371	0.264	0.330
OR	7	1	0.012	0.000	0.025	0.006	0.017	0.324	0.248	0.409	0.294	0.350
OR	8	1	0.008	0.000	0.020	0.000	0.012	0.355	0.283	0.436	0.323	0.390
OR	9	1	0.006	0.000	0.019	0.000	0.011	0.374	0.302	0.449	0.347	0.406
OR	10	1	0.005	0.000	0.014	0.000	0.007	0.394	0.326	0.466	0.365	0.422
OR	11	1	0.003	0.000	0.013	0.000	0.007	0.412	0.347	0.484	0.379	0.442
OR	12	1	0.002	0.000	0.007	0.000	0.006	0.429	0.360	0.510	0.396	0.453
OR	13	1	0.002	0.000	0.008	0.000	0.000	0.443	0.375	0.509	0.410	0.474
OR	14	1	0.001	0.000	0.007	0.000	0.000	0.463	0.390	0.534	0.436	0.490
OR	15	1	0.001	0.000	0.008	0.000	0.000	0.473	0.405	0.550	0.442	0.501
OR	16	1	0.001	0.000	0.008	0.000	0.000	0.487	0.408	0.561	0.459	0.513
OR	17	1	0.001	0.000	0.008	0.000	0.000	0.497	0.422	0.565	0.465	0.525
OR	18	1	0.001	0.000	0.007	0.000	0.000	0.510	0.450	0.578	0.478	0.537
OR	19	1	0.001	0.000	0.008	0.000	0.000	0.521	0.461	0.586	0.489	0.548
OR	20	1	0.000	0.000	0.000	0.000	0.000	0.527	0.462	0.599	0.503	0.551

OR	1	2	0.245	0.203	0.286	0.229	0.263	0.002	0.000	0.002	0.000	0.000
OR	2	2	0.184	0.138	0.227	0.166	0.204	0.006	0.000	0.028	0.000	0.000
OR	3	2	0.139	0.098	0.179	0.125	0.153	0.016	0.000	0.052	0.000	0.022
OR	4	2	0.090	0.054	0.131	0.074	0.105	0.021	0.000	0.056	0.000	0.030
OR	5	2	0.060	0.037	0.087	0.049	0.072	0.029	0.000	0.060	0.013	0.042
OR	6	2	0.041	0.018	0.067	0.031	0.051	0.036	0.010	0.077	0.023	0.047
OR	7	2	0.031	0.013	0.052	0.023	0.038	0.045	0.011	0.083	0.030	0.059
OR	8	2	0.022	0.005	0.044	0.014	0.030	0.062	0.025	0.111	0.043	0.078
OR	9	2	0.016	0.005	0.035	0.010	0.020	0.075	0.033	0.119	0.055	0.092
OR	10	2	0.012	0.000	0.025	0.005	0.019	0.089	0.037	0.153	0.068	0.108
OR	11	2	0.009	0.000	0.020	0.005	0.015	0.101	0.055	0.153	0.080	0.117
OR	12	2	0.006	0.000	0.016	0.000	0.010	0.119	0.065	0.188	0.095	0.142
OR	13	2	0.006	0.000	0.015	0.000	0.010	0.133	0.078	0.195	0.104	0.157
OR	14	2	0.004	0.000	0.011	0.000	0.005	0.144	0.082	0.225	0.113	0.170
OR	15	2	0.003	0.000	0.010	0.000	0.005	0.162	0.101	0.229	0.133	0.186
OR	16	2	0.003	0.000	0.011	0.000	0.005	0.174	0.107	0.250	0.145	0.203
OR	17	2	0.002	0.000	0.010	0.000	0.005	0.192	0.122	0.266	0.162	0.217
OR	18	2	0.002	0.000	0.006	0.000	0.005	0.204	0.141	0.277	0.177	0.231
OR	19	2	0.001	0.000	0.006	0.000	0.000	0.221	0.152	0.296	0.191	0.248
OR	20	2	0.001	0.000	0.006	0.000	0.000	0.232	0.164	0.315	0.202	0.261
OR	21	2	0.001	0.000	0.006	0.000	0.000	0.248	0.167	0.328	0.212	0.280
OR	22	2	0.001	0.000	0.006	0.000	0.000	0.261	0.190	0.336	0.226	0.293
OR	23	2	0.001	0.000	0.006	0.000	0.000	0.279	0.209	0.352	0.243	0.308
OR	24	2	0.001	0.000	0.006	0.000	0.000	0.294	0.205	0.374	0.261	0.328
OR	25	2	0.001	0.000	0.006	0.000	0.000	0.306	0.225	0.385	0.278	0.336
OR	26	2	0.000	0.000	0.006	0.000	0.000	0.322	0.240	0.400	0.292	0.352
OR	27	2	0.000	0.000	0.006	0.000	0.000	0.330	0.260	0.407	0.294	0.359
OR	28	2	0.000	0.000	0.000	0.000	0.000	0.343	0.272	0.416	0.308	0.379
OR	1	3	0.252	0.210	0.292	0.235	0.270	0.000	0.000	0.000	0.000	0.000
OR	2	3	0.208	0.165	0.251	0.190	0.228	0.000	0.000	0.000	0.000	0.000
OR	3	3	0.174	0.132	0.214	0.159	0.192	0.000	0.000	0.000	0.000	0.000
OR	4	3	0.128	0.090	0.171	0.111	0.146	0.000	0.000	0.000	0.000	0.000
OR	5	3	0.094	0.066	0.128	0.081	0.106	0.001	0.000	0.014	0.000	0.000
OR	6	3	0.069	0.041	0.100	0.057	0.082	0.002	0.000	0.014	0.000	0.000
OR	7	3	0.054	0.028	0.080	0.044	0.063	0.004	0.000	0.015	0.000	0.000
OR	8	3	0.041	0.017	0.069	0.028	0.052	0.005	0.000	0.025	0.000	0.012
OR	9	3	0.031	0.010	0.055	0.023	0.038	0.007	0.000	0.026	0.000	0.012
OR	10	3	0.023	0.009	0.042	0.014	0.028	0.010	0.000	0.033	0.000	0.013
OR	11	3	0.018	0.005	0.036	0.012	0.024	0.012	0.000	0.038	0.000	0.021
OR	12	3	0.013	0.000	0.025	0.009	0.018	0.015	0.000	0.042	0.000	0.023
OR	13	3	0.011	0.000	0.024	0.005	0.015	0.018	0.000	0.048	0.010	0.025
OR	14	3	0.009	0.000	0.021	0.005	0.014	0.023	0.000	0.058	0.011	0.033

OR	15	3	0.006	0.000	0.015	0.003	0.010	0.027	0.000	0.058	0.012	0.038
OR	16	3	0.006	0.000	0.015	0.000	0.010	0.032	0.000	0.057	0.021	0.043
OR	17	3	0.004	0.000	0.014	0.000	0.005	0.037	0.011	0.079	0.021	0.051
OR	18	3	0.004	0.000	0.010	0.000	0.005	0.044	0.012	0.076	0.030	0.058
OR	19	3	0.003	0.000	0.010	0.000	0.005	0.047	0.015	0.090	0.030	0.060
OR	20	3	0.003	0.000	0.009	0.000	0.005	0.055	0.012	0.098	0.039	0.068
OR	21	3	0.002	0.000	0.010	0.000	0.005	0.062	0.020	0.111	0.041	0.082
OR	22	3	0.002	0.000	0.005	0.000	0.005	0.066	0.026	0.119	0.045	0.080
OR	23	3	0.002	0.000	0.005	0.000	0.005	0.080	0.033	0.132	0.055	0.101
OR	24	3	0.001	0.000	0.009	0.000	0.000	0.086	0.039	0.152	0.060	0.106
OR	25	3	0.001	0.000	0.009	0.000	0.000	0.096	0.043	0.154	0.071	0.117
OR	26	3	0.001	0.000	0.005	0.000	0.000	0.109	0.057	0.172	0.081	0.134
OR	27	3	0.001	0.000	0.005	0.000	0.000	0.108	0.051	0.161	0.085	0.131
OR	28	3	0.001	0.000	0.005	0.000	0.000	0.122	0.059	0.193	0.093	0.150
OR	29	3	0.001	0.000	0.005	0.000	0.000	0.132	0.074	0.195	0.107	0.156
OR	30	3	0.001	0.000	0.005	0.000	0.000	0.137	0.071	0.210	0.106	0.163
WA	1	3	0.267	0.208	0.323	0.244	0.294	0.000	0.000	0.000	0.000	0.000
WA	2	3	0.231	0.176	0.294	0.208	0.253	0.000	0.000	0.000	0.000	0.000
WA	3	3	0.196	0.143	0.264	0.173	0.215	0.000	0.000	0.000	0.000	0.000
WA	4	3	0.151	0.105	0.207	0.128	0.174	0.001	0.000	0.016	0.000	0.000
WA	5	3	0.113	0.073	0.165	0.092	0.129	0.002	0.000	0.015	0.000	0.000
WA	6	3	0.087	0.051	0.136	0.069	0.102	0.002	0.000	0.015	0.000	0.000
WA	7	3	0.066	0.031	0.103	0.050	0.081	0.004	0.000	0.015	0.000	0.000
WA	8	3	0.050	0.022	0.091	0.036	0.061	0.006	0.000	0.025	0.000	0.012
WA	9	3	0.037	0.014	0.069	0.026	0.048	0.005	0.000	0.023	0.000	0.012
WA	10	3	0.029	0.009	0.053	0.019	0.038	0.008	0.000	0.025	0.000	0.012
WA	11	3	0.022	0.005	0.048	0.014	0.029	0.012	0.000	0.035	0.000	0.016
WA	12	3	0.018	0.000	0.036	0.010	0.024	0.015	0.000	0.041	0.008	0.022
WA	13	3	0.014	0.000	0.032	0.005	0.019	0.018	0.000	0.047	0.010	0.026
WA	14	3	0.011	0.000	0.027	0.005	0.015	0.020	0.000	0.048	0.010	0.029
WA	15	3	0.008	0.000	0.025	0.005	0.011	0.026	0.000	0.057	0.012	0.035
WA	16	3	0.007	0.000	0.019	0.003	0.010	0.031	0.007	0.070	0.019	0.043
WA	17	3	0.006	0.000	0.016	0.000	0.010	0.036	0.010	0.074	0.021	0.047
WA	18	3	0.005	0.000	0.015	0.000	0.009	0.041	0.011	0.080	0.023	0.056
WA	19	3	0.004	0.000	0.010	0.000	0.005	0.049	0.012	0.091	0.033	0.065
WA	20	3	0.004	0.000	0.015	0.000	0.005	0.054	0.019	0.095	0.036	0.068
WA	21	3	0.003	0.000	0.011	0.000	0.005	0.061	0.023	0.112	0.042	0.076
WA	22	3	0.002	0.000	0.010	0.000	0.005	0.068	0.020	0.120	0.046	0.089
WA	23	3	0.002	0.000	0.010	0.000	0.005	0.073	0.028	0.125	0.052	0.093
WA	24	3	0.002	0.000	0.010	0.000	0.005	0.082	0.039	0.152	0.057	0.102
WA	25	3	0.001	0.000	0.006	0.000	0.000	0.093	0.045	0.146	0.071	0.113
WA	26	3	0.001	0.000	0.005	0.000	0.000	0.100	0.041	0.155	0.073	0.124

WA	27	3	0.001	0.000	0.005	0.000	0.000	0.105	0.050	0.163	0.080	0.129
WA	28	3	0.001	0.000	0.005	0.000	0.000	0.116	0.058	0.185	0.093	0.139
WA	29	3	0.001	0.000	0.005	0.000	0.000	0.126	0.064	0.196	0.097	0.154
WA	30	3	0.001	0.000	0.005	0.000	0.000	0.133	0.067	0.204	0.103	0.158
OR	1	4	0.252	0.210	0.292	0.235	0.270	0.000	0.000	0.000	0.000	0.000
OR	2	4	0.212	0.169	0.256	0.194	0.231	0.000	0.000	0.000	0.000	0.000
OR	3	4	0.185	0.145	0.225	0.170	0.203	0.000	0.000	0.000	0.000	0.000
OR	4	4	0.145	0.104	0.193	0.126	0.164	0.000	0.000	0.000	0.000	0.000
OR	5	4	0.114	0.081	0.150	0.099	0.126	0.000	0.000	0.000	0.000	0.000
OR	6	4	0.091	0.061	0.127	0.078	0.105	0.000	0.000	0.000	0.000	0.000
OR	7	4	0.072	0.047	0.102	0.060	0.081	0.000	0.000	0.000	0.000	0.000
OR	8	4	0.056	0.027	0.088	0.043	0.069	0.000	0.000	0.000	0.000	0.000
OR	9	4	0.044	0.022	0.072	0.033	0.053	0.000	0.000	0.000	0.000	0.000
OR	10	4	0.033	0.014	0.056	0.024	0.041	0.000	0.000	0.000	0.000	0.000
OR	11	4	0.027	0.010	0.050	0.018	0.034	0.001	0.000	0.012	0.000	0.000
OR	12	4	0.021	0.008	0.038	0.014	0.028	0.001	0.000	0.012	0.000	0.000
OR	13	4	0.017	0.005	0.033	0.010	0.024	0.002	0.000	0.013	0.000	0.000
OR	14	4	0.014	0.005	0.030	0.009	0.019	0.002	0.000	0.012	0.000	0.000
OR	15	4	0.011	0.000	0.024	0.005	0.014	0.003	0.000	0.013	0.000	0.009
OR	16	4	0.009	0.000	0.020	0.005	0.014	0.003	0.000	0.014	0.000	0.002
OR	17	4	0.008	0.000	0.019	0.004	0.013	0.005	0.000	0.014	0.000	0.011
OR	18	4	0.006	0.000	0.018	0.004	0.010	0.005	0.000	0.022	0.000	0.011
OR	19	4	0.005	0.000	0.014	0.000	0.009	0.007	0.000	0.025	0.000	0.012
OR	20	4	0.005	0.000	0.014	0.000	0.009	0.007	0.000	0.023	0.000	0.012
OR	21	4	0.004	0.000	0.014	0.000	0.005	0.009	0.000	0.027	0.000	0.012
OR	22	4	0.003	0.000	0.010	0.000	0.005	0.010	0.000	0.035	0.000	0.013
OR	23	4	0.003	0.000	0.010	0.000	0.005	0.015	0.000	0.041	0.000	0.023
OR	24	4	0.002	0.000	0.009	0.000	0.005	0.016	0.000	0.045	0.000	0.024
OR	25	4	0.002	0.000	0.010	0.000	0.005	0.020	0.000	0.047	0.011	0.026
OR	26	4	0.002	0.000	0.009	0.000	0.005	0.022	0.000	0.056	0.011	0.032
OR	27	4	0.002	0.000	0.009	0.000	0.001	0.022	0.000	0.048	0.011	0.031
OR	28	4	0.001	0.000	0.005	0.000	0.004	0.028	0.000	0.060	0.012	0.039
OR	29	4	0.001	0.000	0.005	0.000	0.000	0.031	0.010	0.063	0.020	0.040
OR	30	4	0.001	0.000	0.005	0.000	0.000	0.032	0.000	0.069	0.021	0.042
WA	1	4	0.267	0.208	0.323	0.244	0.294	0.000	0.000	0.000	0.000	0.000
WA	2	4	0.236	0.182	0.302	0.212	0.259	0.000	0.000	0.000	0.000	0.000
WA	3	4	0.210	0.154	0.274	0.187	0.232	0.000	0.000	0.000	0.000	0.000
WA	4	4	0.173	0.118	0.227	0.146	0.195	0.000	0.000	0.000	0.000	0.000
WA	5	4	0.139	0.093	0.194	0.119	0.158	0.000	0.000	0.000	0.000	0.000
WA	6	4	0.112	0.068	0.162	0.090	0.127	0.000	0.000	0.000	0.000	0.000
WA	7	4	0.090	0.052	0.134	0.070	0.107	0.000	0.000	0.000	0.000	0.000
WA	8	4	0.072	0.035	0.117	0.054	0.086	0.000	0.000	0.000	0.000	0.000

WA	9	4	0.057	0.023	0.096	0.041	0.071	0.000	0.000	0.000	0.000	0.000
WA	10	4	0.045	0.019	0.077	0.031	0.057	0.000	0.000	0.000	0.000	0.000
WA	11	4	0.035	0.013	0.065	0.023	0.047	0.001	0.000	0.011	0.000	0.000
WA	12	4	0.029	0.009	0.049	0.018	0.037	0.001	0.000	0.012	0.000	0.000
WA	13	4	0.023	0.005	0.044	0.014	0.029	0.002	0.000	0.013	0.000	0.000
WA	14	4	0.018	0.000	0.041	0.009	0.024	0.002	0.000	0.012	0.000	0.000
WA	15	4	0.015	0.000	0.037	0.005	0.019	0.002	0.000	0.013	0.000	0.000
WA	16	4	0.012	0.000	0.028	0.005	0.016	0.004	0.000	0.014	0.000	0.010
WA	17	4	0.011	0.000	0.024	0.005	0.014	0.004	0.000	0.020	0.000	0.010
WA	18	4	0.009	0.000	0.024	0.005	0.013	0.006	0.000	0.021	0.000	0.011
WA	19	4	0.007	0.000	0.020	0.000	0.010	0.007	0.000	0.024	0.000	0.012
WA	20	4	0.007	0.000	0.019	0.000	0.010	0.007	0.000	0.024	0.000	0.011
WA	21	4	0.006	0.000	0.018	0.000	0.010	0.010	0.000	0.034	0.000	0.014
WA	22	4	0.004	0.000	0.015	0.000	0.006	0.011	0.000	0.032	0.000	0.019
WA	23	4	0.004	0.000	0.014	0.000	0.005	0.013	0.000	0.034	0.000	0.021
WA	24	4	0.003	0.000	0.014	0.000	0.005	0.015	0.000	0.042	0.007	0.023
WA	25	4	0.003	0.000	0.014	0.000	0.005	0.019	0.000	0.046	0.010	0.024
WA	26	4	0.003	0.000	0.010	0.000	0.005	0.019	0.000	0.048	0.010	0.028
WA	27	4	0.002	0.000	0.010	0.000	0.005	0.023	0.000	0.051	0.011	0.032
WA	28	4	0.002	0.000	0.010	0.000	0.005	0.027	0.000	0.059	0.011	0.039
WA	29	4	0.002	0.000	0.009	0.000	0.005	0.031	0.000	0.069	0.019	0.041
WA	30	4	0.001	0.000	0.006	0.000	0.000	0.033	0.000	0.071	0.018	0.045
OR	1	5	0.252	0.210	0.292	0.235	0.270	0.000	0.000	0.000	0.000	0.000
OR	2	5	0.212	0.169	0.256	0.194	0.231	0.000	0.000	0.000	0.000	0.000
OR	3	5	0.188	0.149	0.229	0.172	0.207	0.000	0.000	0.000	0.000	0.000
OR	4	5	0.151	0.112	0.197	0.130	0.167	0.000	0.000	0.000	0.000	0.000
OR	5	5	0.122	0.089	0.157	0.109	0.136	0.000	0.000	0.000	0.000	0.000
OR	6	5	0.101	0.071	0.136	0.087	0.115	0.000	0.000	0.000	0.000	0.000
OR	7	5	0.083	0.054	0.115	0.072	0.094	0.000	0.000	0.000	0.000	0.000
OR	8	5	0.067	0.037	0.100	0.052	0.079	0.000	0.000	0.000	0.000	0.000
OR	9	5	0.054	0.029	0.085	0.043	0.064	0.000	0.000	0.000	0.000	0.000
OR	10	5	0.043	0.019	0.068	0.032	0.051	0.000	0.000	0.000	0.000	0.000
OR	11	5	0.035	0.014	0.064	0.026	0.042	0.000	0.000	0.000	0.000	0.000
OR	12	5	0.028	0.009	0.049	0.018	0.035	0.000	0.000	0.000	0.000	0.000
OR	13	5	0.022	0.009	0.042	0.014	0.030	0.000	0.000	0.000	0.000	0.000
OR	14	5	0.019	0.005	0.038	0.013	0.025	0.000	0.000	0.000	0.000	0.000
OR	15	5	0.015	0.005	0.029	0.009	0.020	0.000	0.000	0.000	0.000	0.000
OR	16	5	0.013	0.000	0.027	0.005	0.018	0.000	0.000	0.000	0.000	0.000
OR	17	5	0.011	0.000	0.024	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	18	5	0.009	0.000	0.020	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	19	5	0.007	0.000	0.018	0.004	0.010	0.001	0.000	0.012	0.000	0.000
OR	20	5	0.007	0.000	0.019	0.004	0.010	0.001	0.000	0.000	0.000	0.000

OR	21	5	0.006	0.000	0.018	0.000	0.009	0.001	0.000	0.011	0.000	0.000
OR	22	5	0.004	0.000	0.010	0.000	0.005	0.001	0.000	0.011	0.000	0.000
OR	23	5	0.004	0.000	0.013	0.000	0.005	0.002	0.000	0.012	0.000	0.000
OR	24	5	0.003	0.000	0.010	0.000	0.005	0.002	0.000	0.012	0.000	0.000
OR	25	5	0.003	0.000	0.010	0.000	0.005	0.002	0.000	0.012	0.000	0.000
OR	26	5	0.003	0.000	0.010	0.000	0.005	0.003	0.000	0.013	0.000	0.000
OR	27	5	0.002	0.000	0.010	0.000	0.005	0.003	0.000	0.013	0.000	0.000
OR	28	5	0.002	0.000	0.009	0.000	0.005	0.005	0.000	0.021	0.000	0.011
OR	29	5	0.002	0.000	0.005	0.000	0.005	0.005	0.000	0.023	0.000	0.011
OR	30	5	0.001	0.000	0.005	0.000	0.000	0.005	0.000	0.023	0.000	0.011
WA	1	5	0.267	0.208	0.323	0.244	0.294	0.000	0.000	0.000	0.000	0.000
WA	2	5	0.237	0.182	0.302	0.213	0.259	0.000	0.000	0.000	0.000	0.000
WA	3	5	0.212	0.158	0.276	0.189	0.236	0.000	0.000	0.000	0.000	0.000
WA	4	5	0.179	0.126	0.232	0.156	0.202	0.000	0.000	0.000	0.000	0.000
WA	5	5	0.151	0.100	0.208	0.131	0.171	0.000	0.000	0.000	0.000	0.000
WA	6	5	0.126	0.084	0.179	0.105	0.145	0.000	0.000	0.000	0.000	0.000
WA	7	5	0.105	0.060	0.152	0.084	0.126	0.000	0.000	0.000	0.000	0.000
WA	8	5	0.087	0.045	0.140	0.070	0.099	0.000	0.000	0.000	0.000	0.000
WA	9	5	0.071	0.035	0.113	0.053	0.086	0.000	0.000	0.000	0.000	0.000
WA	10	5	0.058	0.026	0.096	0.043	0.072	0.000	0.000	0.000	0.000	0.000
WA	11	5	0.047	0.018	0.081	0.032	0.060	0.000	0.000	0.000	0.000	0.000
WA	12	5	0.039	0.013	0.069	0.027	0.049	0.000	0.000	0.000	0.000	0.000
WA	13	5	0.032	0.009	0.059	0.020	0.041	0.000	0.000	0.000	0.000	0.000
WA	14	5	0.025	0.005	0.055	0.014	0.032	0.000	0.000	0.000	0.000	0.000
WA	15	5	0.021	0.005	0.043	0.013	0.028	0.000	0.000	0.000	0.000	0.000
WA	16	5	0.018	0.005	0.038	0.009	0.024	0.000	0.000	0.000	0.000	0.000
WA	17	5	0.016	0.000	0.033	0.009	0.022	0.001	0.000	0.001	0.000	0.000
WA	18	5	0.012	0.000	0.029	0.005	0.017	0.001	0.000	0.000	0.000	0.000
WA	19	5	0.011	0.000	0.028	0.005	0.014	0.001	0.000	0.010	0.000	0.000
WA	20	5	0.009	0.000	0.024	0.005	0.014	0.001	0.000	0.010	0.000	0.000
WA	21	5	0.008	0.000	0.022	0.003	0.013	0.001	0.000	0.011	0.000	0.000
WA	22	5	0.007	0.000	0.021	0.000	0.010	0.001	0.000	0.011	0.000	0.000
WA	23	5	0.006	0.000	0.019	0.000	0.010	0.002	0.000	0.012	0.000	0.000
WA	24	5	0.005	0.000	0.015	0.000	0.005	0.003	0.000	0.012	0.000	0.000
WA	25	5	0.004	0.000	0.016	0.000	0.005	0.003	0.000	0.012	0.000	0.000
WA	26	5	0.004	0.000	0.014	0.000	0.005	0.003	0.000	0.014	0.000	0.009
WA	27	5	0.003	0.000	0.011	0.000	0.005	0.004	0.000	0.015	0.000	0.009
WA	28	5	0.003	0.000	0.010	0.000	0.005	0.005	0.000	0.022	0.000	0.011
WA	29	5	0.003	0.000	0.010	0.000	0.005	0.005	0.000	0.019	0.000	0.011
WA	30	5	0.002	0.000	0.010	0.000	0.005	0.006	0.000	0.024	0.000	0.011
OR	1	6	0.252	0.210	0.292	0.235	0.270	0.000	0.000	0.000	0.000	0.000
OR	2	6	0.212	0.169	0.256	0.194	0.231	0.000	0.000	0.000	0.000	0.000

OR	3	6	0.188	0.149	0.229	0.172	0.207	0.000	0.000	0.000	0.000	0.000
OR	4	6	0.152	0.112	0.198	0.132	0.168	0.000	0.000	0.000	0.000	0.000
OR	5	6	0.125	0.092	0.157	0.112	0.139	0.000	0.000	0.000	0.000	0.000
OR	6	6	0.106	0.075	0.141	0.091	0.121	0.000	0.000	0.000	0.000	0.000
OR	7	6	0.089	0.061	0.120	0.078	0.101	0.000	0.000	0.000	0.000	0.000
OR	8	6	0.074	0.045	0.112	0.059	0.087	0.000	0.000	0.000	0.000	0.000
OR	9	6	0.061	0.033	0.091	0.046	0.071	0.000	0.000	0.000	0.000	0.000
OR	10	6	0.049	0.027	0.076	0.038	0.057	0.000	0.000	0.000	0.000	0.000
OR	11	6	0.041	0.018	0.069	0.031	0.049	0.000	0.000	0.000	0.000	0.000
OR	12	6	0.033	0.014	0.055	0.022	0.042	0.000	0.000	0.000	0.000	0.000
OR	13	6	0.027	0.010	0.048	0.019	0.033	0.000	0.000	0.000	0.000	0.000
OR	14	6	0.024	0.009	0.044	0.014	0.031	0.000	0.000	0.000	0.000	0.000
OR	15	6	0.019	0.005	0.036	0.013	0.024	0.000	0.000	0.000	0.000	0.000
OR	16	6	0.016	0.004	0.030	0.009	0.020	0.000	0.000	0.000	0.000	0.000
OR	17	6	0.014	0.000	0.029	0.009	0.019	0.000	0.000	0.000	0.000	0.000
OR	18	6	0.011	0.000	0.024	0.005	0.015	0.000	0.000	0.000	0.000	0.000
OR	19	6	0.010	0.000	0.020	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	20	6	0.009	0.000	0.020	0.005	0.011	0.000	0.000	0.000	0.000	0.000
OR	21	6	0.008	0.000	0.020	0.004	0.010	0.000	0.000	0.000	0.000	0.000
OR	22	6	0.005	0.000	0.014	0.000	0.009	0.000	0.000	0.000	0.000	0.000
OR	23	6	0.005	0.000	0.014	0.000	0.009	0.000	0.000	0.000	0.000	0.000
OR	24	6	0.004	0.000	0.014	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	25	6	0.004	0.000	0.014	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	26	6	0.004	0.000	0.013	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	27	6	0.003	0.000	0.010	0.000	0.005	0.001	0.000	0.000	0.000	0.000
OR	28	6	0.003	0.000	0.010	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	29	6	0.002	0.000	0.009	0.000	0.005	0.001	0.000	0.010	0.000	0.000
OR	30	6	0.002	0.000	0.005	0.000	0.005	0.001	0.000	0.010	0.000	0.000
WA	1	6	0.267	0.208	0.323	0.244	0.294	0.000	0.000	0.000	0.000	0.000
WA	2	6	0.237	0.182	0.302	0.213	0.259	0.000	0.000	0.000	0.000	0.000
WA	3	6	0.213	0.159	0.276	0.190	0.236	0.000	0.000	0.000	0.000	0.000
WA	4	6	0.180	0.126	0.236	0.157	0.203	0.000	0.000	0.000	0.000	0.000
WA	5	6	0.154	0.101	0.210	0.134	0.174	0.000	0.000	0.000	0.000	0.000
WA	6	6	0.132	0.087	0.189	0.110	0.152	0.000	0.000	0.000	0.000	0.000
WA	7	6	0.113	0.066	0.166	0.092	0.130	0.000	0.000	0.000	0.000	0.000
WA	8	6	0.096	0.054	0.153	0.077	0.110	0.000	0.000	0.000	0.000	0.000
WA	9	6	0.080	0.041	0.124	0.062	0.097	0.000	0.000	0.000	0.000	0.000
WA	10	6	0.067	0.033	0.111	0.052	0.083	0.000	0.000	0.000	0.000	0.000
WA	11	6	0.056	0.023	0.093	0.041	0.070	0.000	0.000	0.000	0.000	0.000
WA	12	6	0.047	0.019	0.086	0.034	0.057	0.000	0.000	0.000	0.000	0.000
WA	13	6	0.040	0.014	0.072	0.029	0.050	0.000	0.000	0.000	0.000	0.000
WA	14	6	0.031	0.009	0.064	0.019	0.040	0.000	0.000	0.000	0.000	0.000

WA	15	6	0.027	0.009	0.055	0.014	0.035	0.000	0.000	0.000	0.000	0.000
WA	16	6	0.023	0.005	0.047	0.014	0.029	0.000	0.000	0.000	0.000	0.000
WA	17	6	0.020	0.005	0.038	0.013	0.024	0.000	0.000	0.000	0.000	0.000
WA	18	6	0.016	0.000	0.037	0.005	0.021	0.000	0.000	0.000	0.000	0.000
WA	19	6	0.014	0.000	0.036	0.005	0.019	0.000	0.000	0.000	0.000	0.000
WA	20	6	0.013	0.000	0.030	0.005	0.019	0.000	0.000	0.000	0.000	0.000
WA	21	6	0.010	0.000	0.025	0.005	0.014	0.000	0.000	0.000	0.000	0.000
WA	22	6	0.009	0.000	0.025	0.005	0.014	0.000	0.000	0.000	0.000	0.000
WA	23	6	0.009	0.000	0.024	0.004	0.014	0.000	0.000	0.000	0.000	0.000
WA	24	6	0.007	0.000	0.019	0.000	0.010	0.000	0.000	0.000	0.000	0.000
WA	25	6	0.006	0.000	0.020	0.000	0.009	0.000	0.000	0.000	0.000	0.000
WA	26	6	0.006	0.000	0.019	0.000	0.009	0.000	0.000	0.000	0.000	0.000
WA	27	6	0.004	0.000	0.014	0.000	0.005	0.000	0.000	0.000	0.000	0.000
WA	28	6	0.004	0.000	0.014	0.000	0.009	0.000	0.000	0.000	0.000	0.000
WA	29	6	0.004	0.000	0.014	0.000	0.005	0.001	0.000	0.010	0.000	0.000
WA	30	6	0.003	0.000	0.014	0.000	0.005	0.001	0.000	0.000	0.000	0.000

Table A-11: Performance measures for various protocol options under scenario 4. VpY is visits per year (for two years). PT is the presence threshold: How many visits with presence detections equate to occupancy? PT=0 means that presence detections are not used to determine occupancy.

state	VpY	PT	FO mean	FO 5%	FO 95%	FO 25%	FO 75%	FD mean	FD 5%	FD 95%	FD 25%	FD 75%
OR	2	0	0.213	0.172	0.258	0.192	0.233	0.000	0.000	0.000	0.000	0.000
OR	4	0	0.153	0.115	0.200	0.135	0.168	0.000	0.000	0.000	0.000	0.000
OR	6	0	0.110	0.075	0.146	0.095	0.123	0.000	0.000	0.000	0.000	0.000
OR	8	0	0.072	0.043	0.108	0.057	0.086	0.000	0.000	0.000	0.000	0.000
OR	10	0	0.055	0.031	0.086	0.043	0.068	0.000	0.000	0.000	0.000	0.000
OR	12	0	0.037	0.017	0.059	0.027	0.047	0.000	0.000	0.000	0.000	0.000
OR	14	0	0.027	0.009	0.047	0.019	0.034	0.000	0.000	0.000	0.000	0.000
OR	16	0	0.020	0.005	0.038	0.013	0.026	0.000	0.000	0.000	0.000	0.000
OR	18	0	0.014	0.000	0.031	0.009	0.019	0.000	0.000	0.000	0.000	0.000
OR	20	0	0.010	0.000	0.022	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	22	0	0.008	0.000	0.019	0.004	0.013	0.000	0.000	0.000	0.000	0.000
OR	24	0	0.006	0.000	0.018	0.000	0.009	0.000	0.000	0.000	0.000	0.000
OR	26	0	0.004	0.000	0.010	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	28	0	0.003	0.000	0.010	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	30	0	0.003	0.000	0.009	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	32	0	0.002	0.000	0.010	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	34	0	0.002	0.000	0.005	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	36	0	0.002	0.000	0.005	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	38	0	0.001	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	40	0	0.001	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WA	2	0	0.232	0.169	0.298	0.206	0.259	0.000	0.000	0.000	0.000	0.000
WA	4	0	0.178	0.128	0.237	0.153	0.202	0.000	0.000	0.000	0.000	0.000
WA	6	0	0.135	0.080	0.187	0.116	0.155	0.000	0.000	0.000	0.000	0.000
WA	8	0	0.101	0.053	0.150	0.083	0.118	0.000	0.000	0.000	0.000	0.000
WA	10	0	0.077	0.038	0.122	0.059	0.094	0.000	0.000	0.000	0.000	0.000
WA	12	0	0.056	0.026	0.089	0.041	0.068	0.000	0.000	0.000	0.000	0.000
WA	14	0	0.045	0.019	0.078	0.032	0.056	0.000	0.000	0.000	0.000	0.000
WA	16	0	0.033	0.009	0.065	0.023	0.044	0.000	0.000	0.000	0.000	0.000
WA	18	0	0.026	0.005	0.053	0.015	0.034	0.000	0.000	0.000	0.000	0.000
WA	20	0	0.020	0.004	0.041	0.010	0.028	0.000	0.000	0.000	0.000	0.000
WA	22	0	0.015	0.000	0.035	0.009	0.022	0.000	0.000	0.000	0.000	0.000
WA	24	0	0.013	0.000	0.029	0.005	0.018	0.000	0.000	0.000	0.000	0.000
WA	26	0	0.010	0.000	0.023	0.005	0.015	0.000	0.000	0.000	0.000	0.000
WA	28	0	0.007	0.000	0.020	0.000	0.010	0.000	0.000	0.000	0.000	0.000
WA	30	0	0.006	0.000	0.016	0.000	0.010	0.000	0.000	0.000	0.000	0.000
WA	32	0	0.005	0.000	0.018	0.000	0.009	0.000	0.000	0.000	0.000	0.000
WA	34	0	0.004	0.000	0.014	0.000	0.005	0.000	0.000	0.000	0.000	0.000
WA	36	0	0.004	0.000	0.010	0.000	0.005	0.000	0.000	0.000	0.000	0.000

WA	38	0	0.003	0.000	0.010	0.000	0.005	0.000	0.000	0.000	0.000	0.000
WA	40	0	0.002	0.000	0.009	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	2	1	0.110	0.074	0.150	0.094	0.129	0.169	0.105	0.236	0.135	0.196
OR	4	1	0.040	0.020	0.067	0.031	0.048	0.236	0.148	0.316	0.200	0.269
OR	6	1	0.016	0.000	0.033	0.011	0.022	0.295	0.220	0.369	0.266	0.323
OR	8	1	0.007	0.000	0.019	0.000	0.012	0.352	0.278	0.430	0.323	0.381
OR	10	1	0.003	0.000	0.013	0.000	0.006	0.394	0.321	0.468	0.364	0.429
OR	12	1	0.001	0.000	0.007	0.000	0.000	0.430	0.364	0.510	0.397	0.462
OR	14	1	0.001	0.000	0.007	0.000	0.000	0.463	0.381	0.537	0.434	0.494
OR	16	1	0.000	0.000	0.000	0.000	0.000	0.487	0.416	0.558	0.454	0.524
OR	2	2	0.185	0.140	0.233	0.167	0.205	0.008	0.000	0.033	0.000	0.021
OR	4	2	0.090	0.056	0.122	0.076	0.103	0.022	0.000	0.057	0.000	0.032
OR	6	2	0.042	0.021	0.067	0.032	0.052	0.037	0.011	0.079	0.022	0.051
OR	8	2	0.019	0.005	0.038	0.013	0.024	0.061	0.022	0.108	0.038	0.078
OR	10	2	0.009	0.000	0.021	0.005	0.015	0.084	0.033	0.135	0.064	0.102
OR	12	2	0.005	0.000	0.014	0.000	0.009	0.113	0.062	0.170	0.090	0.133
OR	14	2	0.003	0.000	0.010	0.000	0.005	0.146	0.082	0.213	0.119	0.172
OR	16	2	0.002	0.000	0.006	0.000	0.005	0.175	0.114	0.258	0.144	0.203
OR	18	2	0.001	0.000	0.005	0.000	0.000	0.207	0.138	0.285	0.177	0.236
OR	20	2	0.000	0.000	0.000	0.000	0.000	0.242	0.162	0.327	0.207	0.273
OR	2	3	0.209	0.167	0.255	0.189	0.230	0.000	0.000	0.000	0.000	0.000
OR	4	3	0.128	0.090	0.167	0.113	0.145	0.002	0.000	0.018	0.000	0.000
OR	6	3	0.070	0.039	0.100	0.057	0.081	0.003	0.000	0.015	0.000	0.000
OR	8	3	0.036	0.018	0.058	0.025	0.046	0.005	0.000	0.024	0.000	0.012
OR	10	3	0.021	0.005	0.039	0.014	0.028	0.009	0.000	0.027	0.000	0.013
OR	12	3	0.011	0.000	0.025	0.005	0.015	0.014	0.000	0.035	0.000	0.022
OR	14	3	0.006	0.000	0.015	0.004	0.009	0.022	0.000	0.052	0.011	0.032
OR	16	3	0.004	0.000	0.014	0.000	0.005	0.033	0.000	0.071	0.020	0.043
OR	18	3	0.002	0.000	0.009	0.000	0.005	0.041	0.011	0.083	0.028	0.054
OR	20	3	0.001	0.000	0.005	0.000	0.000	0.057	0.020	0.106	0.037	0.075
OR	22	3	0.001	0.000	0.005	0.000	0.000	0.069	0.021	0.131	0.049	0.082
OR	24	3	0.000	0.000	0.005	0.000	0.000	0.087	0.038	0.143	0.063	0.111
OR	26	3	0.000	0.000	0.000	0.000	0.000	0.100	0.047	0.151	0.080	0.123
OR	2	4	0.213	0.172	0.258	0.192	0.233	0.000	0.000	0.000	0.000	0.000
OR	4	4	0.146	0.110	0.188	0.126	0.160	0.000	0.000	0.000	0.000	0.000
OR	6	4	0.092	0.060	0.130	0.077	0.103	0.000	0.000	0.000	0.000	0.000
OR	8	4	0.051	0.027	0.083	0.038	0.061	0.000	0.000	0.000	0.000	0.000
OR	10	4	0.032	0.013	0.054	0.023	0.041	0.001	0.000	0.011	0.000	0.000
OR	12	4	0.018	0.004	0.036	0.010	0.023	0.001	0.000	0.011	0.000	0.000
OR	14	4	0.011	0.000	0.022	0.005	0.014	0.002	0.000	0.012	0.000	0.000
OR	16	4	0.007	0.000	0.019	0.000	0.010	0.004	0.000	0.014	0.000	0.010
OR	18	4	0.004	0.000	0.014	0.000	0.005	0.005	0.000	0.022	0.000	0.011

OR	20	4	0.002	0.000	0.009	0.000	0.005	0.010	0.000	0.033	0.000	0.013
OR	22	4	0.002	0.000	0.005	0.000	0.005	0.011	0.000	0.034	0.000	0.013
OR	24	4	0.001	0.000	0.005	0.000	0.000	0.016	0.000	0.040	0.009	0.024
OR	26	4	0.000	0.000	0.005	0.000	0.000	0.022	0.000	0.048	0.011	0.032
OR	28	4	0.000	0.000	0.005	0.000	0.000	0.028	0.000	0.066	0.012	0.039
OR	30	4	0.000	0.000	0.005	0.000	0.000	0.034	0.010	0.063	0.021	0.049
OR	32	4	0.000	0.000	0.000	0.000	0.000	0.043	0.011	0.086	0.025	0.057
OR	2	5	0.213	0.172	0.258	0.192	0.233	0.000	0.000	0.000	0.000	0.000
OR	4	5	0.151	0.114	0.200	0.135	0.166	0.000	0.000	0.000	0.000	0.000
OR	6	5	0.103	0.067	0.144	0.089	0.116	0.000	0.000	0.000	0.000	0.000
OR	8	5	0.062	0.035	0.094	0.047	0.072	0.000	0.000	0.000	0.000	0.000
OR	10	5	0.042	0.019	0.065	0.031	0.052	0.000	0.000	0.000	0.000	0.000
OR	12	5	0.024	0.009	0.043	0.014	0.031	0.000	0.000	0.000	0.000	0.000
OR	14	5	0.015	0.004	0.029	0.009	0.019	0.000	0.000	0.000	0.000	0.000
OR	16	5	0.010	0.000	0.024	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	18	5	0.007	0.000	0.018	0.004	0.010	0.001	0.000	0.000	0.000	0.000
OR	20	5	0.004	0.000	0.010	0.000	0.005	0.001	0.000	0.011	0.000	0.000
OR	22	5	0.003	0.000	0.010	0.000	0.005	0.001	0.000	0.011	0.000	0.000
OR	24	5	0.002	0.000	0.009	0.000	0.005	0.002	0.000	0.013	0.000	0.000
OR	26	5	0.001	0.000	0.005	0.000	0.000	0.004	0.000	0.013	0.000	0.010
OR	28	5	0.001	0.000	0.005	0.000	0.000	0.004	0.000	0.014	0.000	0.010
OR	30	5	0.001	0.000	0.005	0.000	0.000	0.006	0.000	0.024	0.000	0.011
OR	32	5	0.000	0.000	0.005	0.000	0.000	0.008	0.000	0.026	0.000	0.012
OR	34	5	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.028	0.000	0.013
OR	2	6	0.213	0.172	0.258	0.192	0.233	0.000	0.000	0.000	0.000	0.000
OR	4	6	0.153	0.115	0.200	0.135	0.168	0.000	0.000	0.000	0.000	0.000
OR	6	6	0.108	0.072	0.145	0.094	0.121	0.000	0.000	0.000	0.000	0.000
OR	8	6	0.068	0.041	0.101	0.054	0.081	0.000	0.000	0.000	0.000	0.000
OR	10	6	0.048	0.024	0.076	0.036	0.060	0.000	0.000	0.000	0.000	0.000
OR	12	6	0.029	0.013	0.050	0.019	0.036	0.000	0.000	0.000	0.000	0.000
OR	14	6	0.019	0.005	0.037	0.013	0.026	0.000	0.000	0.000	0.000	0.000
OR	16	6	0.013	0.000	0.029	0.005	0.018	0.000	0.000	0.000	0.000	0.000
OR	18	6	0.009	0.000	0.020	0.005	0.014	0.000	0.000	0.000	0.000	0.000
OR	20	6	0.005	0.000	0.014	0.000	0.009	0.000	0.000	0.000	0.000	0.000
OR	22	6	0.004	0.000	0.013	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	24	6	0.003	0.000	0.010	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	26	6	0.002	0.000	0.005	0.000	0.005	0.000	0.000	0.000	0.000	0.000
OR	28	6	0.001	0.000	0.005	0.000	0.004	0.000	0.000	0.000	0.000	0.000
OR	30	6	0.001	0.000	0.005	0.000	0.000	0.001	0.000	0.011	0.000	0.000
OR	32	6	0.001	0.000	0.005	0.000	0.000	0.001	0.000	0.011	0.000	0.000
OR	34	6	0.000	0.000	0.005	0.000	0.000	0.001	0.000	0.011	0.000	0.000
OR	36	6	0.000	0.000	0.005	0.000	0.000	0.003	0.000	0.013	0.000	0.000

OR	38	6	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.013	0.000	0.000

Table A-12: Performance measures for various protocol options under scenario 5. VpY is visits per year (for two years). PT is the presence threshold: How many visits with presence detections equate to occupancy? PT=0 means that presence detections are not used to determine occupancy.

state	VpY	PT	FO mean	FO 5%	FO 95%	FO 25%	FO 75%	FD mean	FD 5%	FD 95%	FD 25%	FD 75%
OR	6	0	0.519	0.409	0.614	0.479	0.558	0.000	0.000	0.000	0.000	0.000
OR	12	0	0.402	0.295	0.507	0.350	0.444	0.000	0.000	0.000	0.000	0.000
OR	18	0	0.306	0.204	0.419	0.263	0.346	0.000	0.000	0.000	0.000	0.000
OR	24	0	0.222	0.121	0.346	0.175	0.265	0.000	0.000	0.000	0.000	0.000
OR	30	0	0.164	0.054	0.277	0.128	0.204	0.000	0.000	0.000	0.000	0.000
OR	36	0	0.121	0.042	0.208	0.083	0.153	0.000	0.000	0.000	0.000	0.000
OR	42	0	0.081	0.023	0.158	0.050	0.109	0.000	0.000	0.000	0.000	0.000
OR	48	0	0.062	0.000	0.139	0.028	0.086	0.000	0.000	0.000	0.000	0.000
OR	54	0	0.047	0.000	0.111	0.024	0.069	0.000	0.000	0.000	0.000	0.000
OR	60	0	0.033	0.000	0.094	0.000	0.053	0.000	0.000	0.000	0.000	0.000
OR	66	0	0.025	0.000	0.079	0.000	0.036	0.000	0.000	0.000	0.000	0.000
OR	72	0	0.022	0.000	0.069	0.000	0.032	0.000	0.000	0.000	0.000	0.000
OR	78	0	0.017	0.000	0.061	0.000	0.029	0.000	0.000	0.000	0.000	0.000
OR	84	0	0.013	0.000	0.056	0.000	0.028	0.000	0.000	0.000	0.000	0.000
OR	90	0	0.009	0.000	0.045	0.000	0.022	0.000	0.000	0.000	0.000	0.000
OR	96	0	0.007	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	102	0	0.006	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	108	0	0.005	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	114	0	0.003	0.000	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	120	0	0.003	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WA	6	0	0.552	0.447	0.667	0.512	0.590	0.000	0.000	0.000	0.000	0.000
WA	12	0	0.450	0.318	0.567	0.407	0.500	0.000	0.000	0.000	0.000	0.000
WA	18	0	0.360	0.245	0.491	0.307	0.404	0.000	0.000	0.000	0.000	0.000
WA	24	0	0.273	0.143	0.412	0.229	0.315	0.000	0.000	0.000	0.000	0.000
WA	30	0	0.214	0.093	0.345	0.162	0.268	0.000	0.000	0.000	0.000	0.000
WA	36	0	0.167	0.067	0.286	0.121	0.205	0.000	0.000	0.000	0.000	0.000
WA	42	0	0.133	0.034	0.242	0.091	0.171	0.000	0.000	0.000	0.000	0.000
WA	48	0	0.101	0.024	0.182	0.066	0.136	0.000	0.000	0.000	0.000	0.000
WA	54	0	0.078	0.000	0.167	0.044	0.107	0.000	0.000	0.000	0.000	0.000
WA	60	0	0.060	0.000	0.147	0.028	0.089	0.000	0.000	0.000	0.000	0.000
WA	66	0	0.043	0.000	0.108	0.000	0.067	0.000	0.000	0.000	0.000	0.000
WA	72	0	0.031	0.000	0.098	0.000	0.050	0.000	0.000	0.000	0.000	0.000
WA	78	0	0.027	0.000	0.093	0.000	0.037	0.000	0.000	0.000	0.000	0.000
WA	84	0	0.022	0.000	0.069	0.000	0.034	0.000	0.000	0.000	0.000	0.000
WA	90	0	0.021	0.000	0.077	0.000	0.032	0.000	0.000	0.000	0.000	0.000
WA	96	0	0.018	0.000	0.067	0.000	0.030	0.000	0.000	0.000	0.000	0.000
WA	102	0	0.012	0.000	0.049	0.000	0.026	0.000	0.000	0.000	0.000	0.000
WA	108	0	0.009	0.000	0.036	0.000	0.024	0.000	0.000	0.000	0.000	0.000

WA	114	0	0.009	0.000	0.036	0.000	0.024	0.000	0.000	0.000	0.000	0.000
WA	120	0	0.006	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	6	1	0.328	0.212	0.445	0.279	0.372	0.105	0.037	0.179	0.072	0.132
OR	12	1	0.144	0.040	0.265	0.096	0.185	0.154	0.087	0.231	0.125	0.181
OR	18	1	0.061	0.000	0.174	0.000	0.091	0.193	0.115	0.276	0.160	0.223
OR	24	1	0.029	0.000	0.120	0.000	0.056	0.226	0.152	0.295	0.195	0.256
OR	30	1	0.015	0.000	0.091	0.000	0.000	0.249	0.175	0.325	0.216	0.288
OR	36	1	0.006	0.000	0.071	0.000	0.000	0.269	0.178	0.357	0.235	0.304
OR	42	1	0.003	0.000	0.000	0.000	0.000	0.283	0.198	0.374	0.253	0.309
OR	6	2	0.446	0.322	0.542	0.406	0.495	0.013	0.000	0.046	0.000	0.027
OR	12	2	0.247	0.143	0.359	0.194	0.292	0.034	0.000	0.083	0.018	0.050
OR	18	2	0.122	0.036	0.211	0.081	0.162	0.061	0.015	0.120	0.039	0.080
OR	24	2	0.056	0.000	0.129	0.028	0.088	0.091	0.030	0.147	0.065	0.116
OR	30	2	0.025	0.000	0.080	0.000	0.037	0.115	0.045	0.185	0.087	0.141
OR	36	2	0.015	0.000	0.071	0.000	0.036	0.147	0.079	0.231	0.114	0.176
OR	42	2	0.007	0.000	0.048	0.000	0.000	0.173	0.102	0.247	0.144	0.200
OR	48	2	0.002	0.000	0.000	0.000	0.000	0.192	0.123	0.264	0.160	0.223
OR	6	3	0.497	0.385	0.597	0.451	0.537	0.001	0.000	0.000	0.000	0.000
OR	12	3	0.326	0.213	0.436	0.283	0.370	0.005	0.000	0.024	0.000	0.000
OR	18	3	0.189	0.095	0.289	0.142	0.232	0.013	0.000	0.041	0.000	0.019
OR	24	3	0.097	0.025	0.179	0.063	0.130	0.021	0.000	0.050	0.000	0.033
OR	30	3	0.050	0.000	0.118	0.028	0.071	0.034	0.000	0.077	0.015	0.048
OR	36	3	0.030	0.000	0.091	0.000	0.052	0.053	0.014	0.102	0.030	0.074
OR	42	3	0.013	0.000	0.057	0.000	0.030	0.078	0.028	0.133	0.056	0.099
OR	48	3	0.008	0.000	0.038	0.000	0.000	0.089	0.041	0.149	0.061	0.116
OR	54	3	0.004	0.000	0.036	0.000	0.000	0.114	0.051	0.188	0.083	0.145
OR	60	3	0.003	0.000	0.033	0.000	0.000	0.135	0.064	0.213	0.102	0.167
OR	66	3	0.000	0.000	0.000	0.000	0.000	0.154	0.091	0.230	0.123	0.183
OR	6	4	0.513	0.408	0.606	0.473	0.553	0.000	0.000	0.000	0.000	0.000
OR	12	4	0.369	0.263	0.480	0.320	0.414	0.001	0.000	0.000	0.000	0.000
OR	18	4	0.241	0.133	0.357	0.192	0.286	0.002	0.000	0.018	0.000	0.000
OR	24	4	0.141	0.048	0.233	0.104	0.185	0.005	0.000	0.018	0.000	0.003
OR	30	4	0.081	0.000	0.159	0.049	0.108	0.008	0.000	0.032	0.000	0.016
OR	36	4	0.050	0.000	0.114	0.026	0.077	0.015	0.000	0.047	0.000	0.028
OR	42	4	0.022	0.000	0.074	0.000	0.033	0.024	0.000	0.064	0.013	0.035
OR	48	4	0.012	0.000	0.054	0.000	0.028	0.033	0.000	0.079	0.015	0.045
OR	54	4	0.007	0.000	0.039	0.000	0.000	0.045	0.000	0.097	0.027	0.062
OR	60	4	0.006	0.000	0.035	0.000	0.000	0.059	0.015	0.118	0.041	0.077
OR	66	4	0.002	0.000	0.001	0.000	0.000	0.075	0.027	0.136	0.054	0.098
OR	72	4	0.001	0.000	0.000	0.000	0.000	0.089	0.030	0.151	0.065	0.117
OR	6	5	0.518	0.409	0.614	0.479	0.558	0.000	0.000	0.000	0.000	0.000
OR	12	5	0.388	0.283	0.493	0.338	0.434	0.000	0.000	0.000	0.000	0.000

OR	18	5	0.273	0.177	0.385	0.225	0.315	0.000	0.000	0.000	0.000	0.000
OR	24	5	0.173	0.081	0.286	0.125	0.219	0.001	0.000	0.015	0.000	0.000
OR	30	5	0.112	0.026	0.214	0.077	0.143	0.001	0.000	0.015	0.000	0.000
OR	36	5	0.070	0.000	0.143	0.036	0.102	0.004	0.000	0.017	0.000	0.000
OR	42	5	0.034	0.000	0.094	0.000	0.056	0.006	0.000	0.029	0.000	0.015
OR	48	5	0.022	0.000	0.061	0.000	0.032	0.009	0.000	0.033	0.000	0.016
OR	54	5	0.012	0.000	0.054	0.000	0.027	0.014	0.000	0.046	0.000	0.018
OR	60	5	0.010	0.000	0.039	0.000	0.024	0.023	0.000	0.061	0.013	0.032
OR	66	5	0.004	0.000	0.031	0.000	0.000	0.029	0.000	0.069	0.015	0.043
OR	72	5	0.002	0.000	0.027	0.000	0.000	0.041	0.000	0.083	0.026	0.059
OR	78	5	0.003	0.000	0.031	0.000	0.000	0.049	0.014	0.101	0.029	0.063
OR	84	5	0.001	0.000	0.000	0.000	0.000	0.067	0.025	0.136	0.042	0.085
OR	6	6	0.518	0.409	0.614	0.479	0.558	0.000	0.000	0.000	0.000	0.000
OR	12	6	0.397	0.291	0.500	0.346	0.441	0.000	0.000	0.000	0.000	0.000
OR	18	6	0.291	0.189	0.411	0.246	0.333	0.000	0.000	0.000	0.000	0.000
OR	24	6	0.195	0.091	0.303	0.156	0.238	0.000	0.000	0.000	0.000	0.000
OR	30	6	0.131	0.027	0.229	0.095	0.163	0.000	0.000	0.000	0.000	0.000
OR	36	6	0.089	0.023	0.175	0.057	0.118	0.001	0.000	0.000	0.000	0.000
OR	42	6	0.048	0.000	0.114	0.023	0.074	0.002	0.000	0.015	0.000	0.000
OR	48	6	0.032	0.000	0.087	0.000	0.050	0.002	0.000	0.016	0.000	0.000
OR	54	6	0.018	0.000	0.063	0.000	0.030	0.003	0.000	0.017	0.000	0.000
OR	60	6	0.014	0.000	0.059	0.000	0.027	0.006	0.000	0.028	0.000	0.015
OR	66	6	0.007	0.000	0.032	0.000	0.000	0.009	0.000	0.030	0.000	0.016
OR	72	6	0.005	0.000	0.031	0.000	0.000	0.015	0.000	0.045	0.000	0.018
OR	78	6	0.004	0.000	0.031	0.000	0.000	0.021	0.000	0.052	0.000	0.031
OR	84	6	0.002	0.000	0.026	0.000	0.000	0.029	0.000	0.074	0.015	0.042
OR	90	6	0.001	0.000	0.000	0.000	0.000	0.034	0.000	0.082	0.015	0.051

Table A-13: Performance measures for various protocol options under scenario 6. VpY is visits per year (for two years). PT is the presence threshold: How many visits with presence detections equate to occupancy? PT=0 means that presence detections are not used to determine occupancy.

state	VpY	PT	FO mean	FO 5%	FO 95%	FO 25%	FO 75%	FD mean	FD 5%	FD 95%	FD 25%	FD 75%
OR	6	0	0.517	0.415	0.617	0.480	0.553	0.000	0.000	0.000	0.000	0.000
OR	12	0	0.391	0.276	0.500	0.338	0.437	0.000	0.000	0.000	0.000	0.000
OR	18	0	0.288	0.177	0.390	0.244	0.329	0.000	0.000	0.000	0.000	0.000
OR	24	0	0.215	0.115	0.319	0.171	0.255	0.000	0.000	0.000	0.000	0.000
OR	30	0	0.154	0.061	0.256	0.113	0.192	0.000	0.000	0.000	0.000	0.000
OR	36	0	0.112	0.028	0.200	0.071	0.144	0.000	0.000	0.000	0.000	0.000
OR	42	0	0.080	0.000	0.156	0.051	0.108	0.000	0.000	0.000	0.000	0.000
OR	48	0	0.062	0.000	0.129	0.029	0.088	0.000	0.000	0.000	0.000	0.000
OR	54	0	0.042	0.000	0.111	0.021	0.059	0.000	0.000	0.000	0.000	0.000
OR	60	0	0.033	0.000	0.088	0.000	0.053	0.000	0.000	0.000	0.000	0.000
OR	66	0	0.025	0.000	0.077	0.000	0.036	0.000	0.000	0.000	0.000	0.000
OR	72	0	0.016	0.000	0.061	0.000	0.029	0.000	0.000	0.000	0.000	0.000
OR	78	0	0.014	0.000	0.053	0.000	0.028	0.000	0.000	0.000	0.000	0.000
OR	84	0	0.009	0.000	0.040	0.000	0.024	0.000	0.000	0.000	0.000	0.000
OR	90	0	0.008	0.000	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	96	0	0.006	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	102	0	0.005	0.000	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	108	0	0.004	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	114	0	0.003	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	120	0	0.003	0.000	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WA	6	0	0.550	0.437	0.671	0.500	0.597	0.000	0.000	0.000	0.000	0.000
WA	12	0	0.447	0.298	0.600	0.393	0.492	0.000	0.000	0.000	0.000	0.000
WA	18	0	0.355	0.222	0.483	0.301	0.418	0.000	0.000	0.000	0.000	0.000
WA	24	0	0.277	0.145	0.409	0.224	0.327	0.000	0.000	0.000	0.000	0.000
WA	30	0	0.214	0.080	0.357	0.159	0.266	0.000	0.000	0.000	0.000	0.000
WA	36	0	0.169	0.062	0.314	0.118	0.213	0.000	0.000	0.000	0.000	0.000
WA	42	0	0.133	0.046	0.244	0.079	0.174	0.000	0.000	0.000	0.000	0.000
WA	48	0	0.101	0.021	0.208	0.056	0.135	0.000	0.000	0.000	0.000	0.000
WA	54	0	0.076	0.000	0.158	0.038	0.103	0.000	0.000	0.000	0.000	0.000
WA	60	0	0.062	0.000	0.143	0.029	0.086	0.000	0.000	0.000	0.000	0.000
WA	66	0	0.047	0.000	0.125	0.022	0.071	0.000	0.000	0.000	0.000	0.000
WA	72	0	0.031	0.000	0.091	0.000	0.054	0.000	0.000	0.000	0.000	0.000
WA	78	0	0.029	0.000	0.091	0.000	0.051	0.000	0.000	0.000	0.000	0.000
WA	84	0	0.023	0.000	0.074	0.000	0.037	0.000	0.000	0.000	0.000	0.000
WA	90	0	0.020	0.000	0.071	0.000	0.030	0.000	0.000	0.000	0.000	0.000
WA	96	0	0.015	0.000	0.057	0.000	0.029	0.000	0.000	0.000	0.000	0.000
WA	102	0	0.011	0.000	0.037	0.000	0.025	0.000	0.000	0.000	0.000	0.000
WA	108	0	0.010	0.000	0.040	0.000	0.025	0.000	0.000	0.000	0.000	0.000

WA	114	0	0.008	0.000	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WA	120	0	0.005	0.000	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	6	1	0.299	0.186	0.435	0.249	0.349	0.102	0.034	0.164	0.070	0.131
OR	12	1	0.115	0.000	0.242	0.066	0.160	0.148	0.078	0.227	0.118	0.176
OR	18	1	0.047	0.000	0.131	0.000	0.072	0.189	0.125	0.274	0.158	0.217
OR	24	1	0.016	0.000	0.072	0.000	0.042	0.224	0.148	0.299	0.193	0.257
OR	30	1	0.006	0.000	0.063	0.000	0.000	0.248	0.172	0.326	0.216	0.278
OR	36	1	0.004	0.000	0.000	0.000	0.000	0.269	0.189	0.361	0.233	0.305
OR	6	2	0.436	0.328	0.543	0.396	0.476	0.014	0.000	0.049	0.000	0.026
OR	12	2	0.221	0.095	0.348	0.167	0.264	0.031	0.000	0.078	0.016	0.043
OR	18	2	0.101	0.027	0.195	0.065	0.132	0.057	0.014	0.107	0.036	0.075
OR	24	2	0.046	0.000	0.114	0.000	0.071	0.086	0.038	0.145	0.059	0.108
OR	30	2	0.027	0.000	0.087	0.000	0.040	0.118	0.056	0.188	0.091	0.150
OR	36	2	0.009	0.000	0.053	0.000	0.000	0.145	0.078	0.222	0.111	0.169
OR	42	2	0.003	0.000	0.032	0.000	0.000	0.170	0.101	0.244	0.135	0.203
OR	48	2	0.003	0.000	0.039	0.000	0.000	0.196	0.120	0.270	0.160	0.233
OR	54	2	0.002	0.000	0.000	0.000	0.000	0.211	0.126	0.304	0.178	0.244
OR	6	3	0.495	0.399	0.600	0.461	0.535	0.001	0.000	0.000	0.000	0.000
OR	12	3	0.309	0.196	0.429	0.260	0.362	0.004	0.000	0.023	0.000	0.000
OR	18	3	0.167	0.079	0.258	0.132	0.197	0.012	0.000	0.036	0.000	0.018
OR	24	3	0.087	0.026	0.162	0.057	0.111	0.022	0.000	0.050	0.000	0.033
OR	30	3	0.049	0.000	0.111	0.026	0.069	0.037	0.000	0.076	0.018	0.049
OR	36	3	0.018	0.000	0.072	0.000	0.031	0.054	0.014	0.102	0.030	0.076
OR	42	3	0.011	0.000	0.048	0.000	0.026	0.073	0.027	0.137	0.045	0.092
OR	48	3	0.007	0.000	0.042	0.000	0.000	0.093	0.038	0.160	0.066	0.118
OR	54	3	0.003	0.000	0.036	0.000	0.000	0.110	0.044	0.181	0.084	0.133
OR	60	3	0.002	0.000	0.001	0.000	0.000	0.134	0.067	0.214	0.098	0.164
OR	66	3	0.001	0.000	0.000	0.000	0.000	0.156	0.089	0.236	0.120	0.188
OR	6	4	0.512	0.407	0.610	0.474	0.551	0.000	0.000	0.000	0.000	0.000
OR	12	4	0.358	0.250	0.482	0.303	0.401	0.001	0.000	0.000	0.000	0.000
OR	18	4	0.221	0.111	0.333	0.184	0.251	0.001	0.000	0.017	0.000	0.000
OR	24	4	0.130	0.049	0.229	0.097	0.162	0.004	0.000	0.019	0.000	0.000
OR	30	4	0.076	0.000	0.157	0.048	0.102	0.008	0.000	0.030	0.000	0.016
OR	36	4	0.036	0.000	0.100	0.000	0.054	0.015	0.000	0.036	0.000	0.020
OR	42	4	0.022	0.000	0.067	0.000	0.032	0.024	0.000	0.062	0.000	0.033
OR	48	4	0.013	0.000	0.057	0.000	0.029	0.033	0.000	0.078	0.015	0.047
OR	54	4	0.008	0.000	0.040	0.000	0.000	0.044	0.000	0.090	0.027	0.061
OR	60	4	0.004	0.000	0.031	0.000	0.000	0.059	0.014	0.120	0.030	0.082
OR	66	4	0.002	0.000	0.027	0.000	0.000	0.077	0.028	0.133	0.054	0.100
OR	72	4	0.001	0.000	0.000	0.000	0.000	0.094	0.039	0.160	0.068	0.114
OR	6	5	0.516	0.415	0.617	0.479	0.551	0.000	0.000	0.000	0.000	0.000
OR	12	5	0.380	0.266	0.500	0.332	0.426	0.000	0.000	0.000	0.000	0.000

OR	18	5	0.257	0.152	0.364	0.212	0.293	0.000	0.000	0.000	0.000	0.000
OR	24	5	0.164	0.079	0.270	0.125	0.200	0.001	0.000	0.000	0.000	0.000
OR	30	5	0.102	0.024	0.196	0.061	0.138	0.001	0.000	0.016	0.000	0.000
OR	36	5	0.057	0.000	0.132	0.028	0.079	0.002	0.000	0.016	0.000	0.000
OR	42	5	0.032	0.000	0.091	0.000	0.052	0.006	0.000	0.030	0.000	0.015
OR	48	5	0.020	0.000	0.072	0.000	0.032	0.010	0.000	0.032	0.000	0.016
OR	54	5	0.013	0.000	0.057	0.000	0.028	0.013	0.000	0.044	0.000	0.018
OR	60	5	0.007	0.000	0.035	0.000	0.000	0.020	0.000	0.057	0.000	0.031
OR	66	5	0.005	0.000	0.030	0.000	0.000	0.033	0.000	0.072	0.015	0.046
OR	72	5	0.002	0.000	0.026	0.000	0.000	0.040	0.000	0.079	0.018	0.058
OR	78	5	0.002	0.000	0.000	0.000	0.000	0.049	0.013	0.103	0.028	0.063
OR	6	6	0.517	0.415	0.617	0.480	0.553	0.000	0.000	0.000	0.000	0.000
OR	12	6	0.387	0.273	0.500	0.338	0.435	0.000	0.000	0.000	0.000	0.000
OR	18	6	0.274	0.170	0.383	0.235	0.311	0.000	0.000	0.000	0.000	0.000
OR	24	6	0.187	0.094	0.290	0.152	0.222	0.000	0.000	0.000	0.000	0.000
OR	30	6	0.121	0.027	0.225	0.081	0.156	0.000	0.000	0.000	0.000	0.000
OR	36	6	0.073	0.000	0.167	0.043	0.097	0.000	0.000	0.000	0.000	0.000
OR	42	6	0.045	0.000	0.107	0.022	0.069	0.002	0.000	0.016	0.000	0.000
OR	48	6	0.030	0.000	0.095	0.000	0.052	0.002	0.000	0.016	0.000	0.000
OR	54	6	0.018	0.000	0.072	0.000	0.030	0.004	0.000	0.018	0.000	0.000
OR	60	6	0.011	0.000	0.048	0.000	0.026	0.005	0.000	0.018	0.000	0.014
OR	66	6	0.008	0.000	0.032	0.000	0.022	0.013	0.000	0.039	0.000	0.017
OR	72	6	0.004	0.000	0.029	0.000	0.000	0.015	0.000	0.044	0.000	0.027
OR	78	6	0.002	0.000	0.027	0.000	0.000	0.019	0.000	0.056	0.000	0.030
OR	84	6	0.002	0.000	0.025	0.000	0.000	0.027	0.000	0.066	0.015	0.040
OR	90	6	0.001	0.000	0.000	0.000	0.000	0.035	0.000	0.077	0.015	0.053

Table A-14: Performance measures for various protocol options under scenario 7. VpY is visits per year (for two years). PT is the presence threshold: How many visits with presence detections equate to occupancy? PT=0 means that presence detections are not used to determine occupancy.

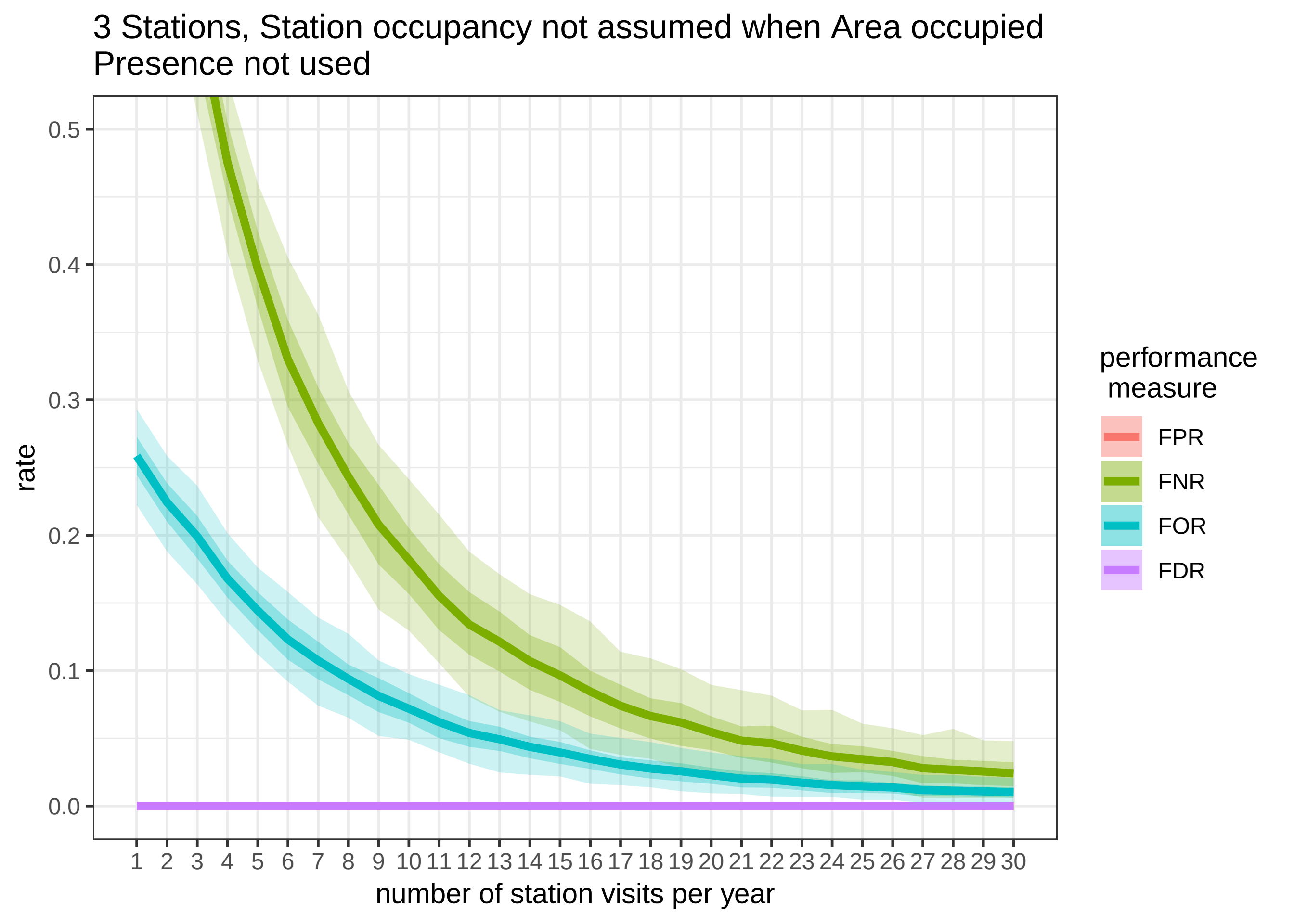
state	VpY	PT	FO mean	FO 5%	FO 95%	FO 25%	FO 75%	FD mean	FD 5%	FD 95%	FD 25%	FD 75%
OR	4	0	0.389	0.285	0.493	0.354	0.429	0.000	0.000	0.000	0.000	0.000
OR	8	0	0.290	0.191	0.397	0.250	0.329	0.000	0.000	0.000	0.000	0.000
OR	12	0	0.213	0.125	0.312	0.178	0.242	0.000	0.000	0.000	0.000	0.000
OR	16	0	0.148	0.089	0.228	0.115	0.170	0.000	0.000	0.000	0.000	0.000
OR	20	0	0.111	0.034	0.194	0.077	0.140	0.000	0.000	0.000	0.000	0.000
OR	24	0	0.077	0.018	0.146	0.049	0.105	0.000	0.000	0.000	0.000	0.000
OR	28	0	0.058	0.015	0.130	0.035	0.080	0.000	0.000	0.000	0.000	0.000
OR	32	0	0.040	0.000	0.095	0.019	0.057	0.000	0.000	0.000	0.000	0.000
OR	36	0	0.027	0.000	0.071	0.000	0.042	0.000	0.000	0.000	0.000	0.000
OR	40	0	0.021	0.000	0.059	0.000	0.035	0.000	0.000	0.000	0.000	0.000
OR	44	0	0.018	0.000	0.058	0.000	0.023	0.000	0.000	0.000	0.000	0.000
OR	48	0	0.014	0.000	0.043	0.000	0.022	0.000	0.000	0.000	0.000	0.000
OR	52	0	0.010	0.000	0.039	0.000	0.020	0.000	0.000	0.000	0.000	0.000
OR	56	0	0.008	0.000	0.041	0.000	0.019	0.000	0.000	0.000	0.000	0.000
OR	60	0	0.005	0.000	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	64	0	0.005	0.000	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	68	0	0.003	0.000	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	72	0	0.003	0.000	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	76	0	0.002	0.000	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	80	0	0.001	0.000	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000
WA	4	0	0.415	0.306	0.526	0.366	0.462	0.000	0.000	0.000	0.000	0.000
WA	8	0	0.327	0.233	0.439	0.283	0.369	0.000	0.000	0.000	0.000	0.000
WA	12	0	0.252	0.155	0.368	0.209	0.289	0.000	0.000	0.000	0.000	0.000
WA	16	0	0.196	0.105	0.301	0.155	0.231	0.000	0.000	0.000	0.000	0.000
WA	20	0	0.143	0.068	0.241	0.106	0.179	0.000	0.000	0.000	0.000	0.000
WA	24	0	0.114	0.037	0.204	0.083	0.140	0.000	0.000	0.000	0.000	0.000
WA	28	0	0.085	0.019	0.167	0.052	0.111	0.000	0.000	0.000	0.000	0.000
WA	32	0	0.065	0.017	0.135	0.038	0.087	0.000	0.000	0.000	0.000	0.000
WA	36	0	0.051	0.000	0.106	0.021	0.076	0.000	0.000	0.000	0.000	0.000
WA	40	0	0.041	0.000	0.098	0.020	0.060	0.000	0.000	0.000	0.000	0.000
WA	44	0	0.030	0.000	0.076	0.000	0.048	0.000	0.000	0.000	0.000	0.000
WA	48	0	0.023	0.000	0.070	0.000	0.035	0.000	0.000	0.000	0.000	0.000
WA	52	0	0.019	0.000	0.059	0.000	0.024	0.000	0.000	0.000	0.000	0.000
WA	56	0	0.013	0.000	0.049	0.000	0.021	0.000	0.000	0.000	0.000	0.000
WA	60	0	0.012	0.000	0.043	0.000	0.021	0.000	0.000	0.000	0.000	0.000
WA	64	0	0.009	0.000	0.040	0.000	0.020	0.000	0.000	0.000	0.000	0.000
WA	68	0	0.008	0.000	0.036	0.000	0.019	0.000	0.000	0.000	0.000	0.000
WA	72	0	0.007	0.000	0.025	0.000	0.018	0.000	0.000	0.000	0.000	0.000
WA	76	0	0.004	0.000	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000

WA	80	0	0.004	0.000	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OR	4	1	0.218	0.126	0.310	0.180	0.255	0.132	0.053	0.233	0.091	0.163
OR	8	1	0.077	0.020	0.146	0.047	0.100	0.182	0.109	0.268	0.147	0.215
OR	12	1	0.029	0.000	0.097	0.000	0.045	0.233	0.143	0.324	0.193	0.268
OR	16	1	0.014	0.000	0.056	0.000	0.031	0.276	0.182	0.364	0.240	0.318
OR	20	1	0.004	0.000	0.037	0.000	0.000	0.307	0.219	0.388	0.272	0.343
OR	24	1	0.004	0.000	0.040	0.000	0.000	0.337	0.243	0.425	0.302	0.374
OR	28	1	0.001	0.000	0.000	0.000	0.000	0.360	0.269	0.447	0.316	0.395
OR	4	2	0.331	0.227	0.446	0.284	0.368	0.010	0.000	0.046	0.000	0.000
OR	8	2	0.166	0.088	0.269	0.129	0.200	0.028	0.000	0.077	0.000	0.047
OR	12	2	0.076	0.019	0.145	0.045	0.100	0.053	0.000	0.122	0.023	0.077
OR	16	2	0.035	0.000	0.085	0.019	0.048	0.077	0.018	0.141	0.042	0.106
OR	20	2	0.019	0.000	0.054	0.000	0.028	0.111	0.049	0.184	0.082	0.138
OR	24	2	0.010	0.000	0.044	0.000	0.023	0.138	0.069	0.208	0.107	0.167
OR	28	2	0.006	0.000	0.029	0.000	0.000	0.177	0.095	0.269	0.138	0.211
OR	32	2	0.002	0.000	0.022	0.000	0.000	0.200	0.109	0.292	0.164	0.234
OR	36	2	0.001	0.000	0.000	0.000	0.000	0.228	0.134	0.320	0.191	0.264
OR	4	3	0.376	0.268	0.483	0.341	0.413	0.000	0.000	0.000	0.000	0.000
OR	8	3	0.236	0.143	0.339	0.197	0.273	0.003	0.000	0.029	0.000	0.000
OR	12	3	0.132	0.051	0.216	0.098	0.164	0.008	0.000	0.038	0.000	0.019
OR	16	3	0.067	0.019	0.128	0.038	0.088	0.012	0.000	0.043	0.000	0.021
OR	20	3	0.037	0.000	0.087	0.019	0.054	0.024	0.000	0.061	0.000	0.037
OR	24	3	0.018	0.000	0.057	0.000	0.023	0.035	0.000	0.087	0.018	0.054
OR	28	3	0.012	0.000	0.046	0.000	0.022	0.056	0.000	0.109	0.035	0.076
OR	32	3	0.004	0.000	0.023	0.000	0.000	0.068	0.017	0.128	0.039	0.090
OR	36	3	0.002	0.000	0.021	0.000	0.000	0.089	0.032	0.153	0.059	0.118
OR	40	3	0.002	0.000	0.022	0.000	0.000	0.111	0.049	0.189	0.080	0.134
OR	44	3	0.001	0.000	0.000	0.000	0.000	0.135	0.060	0.219	0.100	0.167
OR	4	4	0.387	0.285	0.488	0.350	0.427	0.000	0.000	0.000	0.000	0.000
OR	8	4	0.270	0.176	0.379	0.229	0.311	0.000	0.000	0.000	0.000	0.000
OR	12	4	0.173	0.094	0.268	0.138	0.204	0.001	0.000	0.000	0.000	0.000
OR	16	4	0.098	0.038	0.170	0.071	0.120	0.001	0.000	0.001	0.000	0.000
OR	20	4	0.059	0.000	0.123	0.034	0.082	0.003	0.000	0.021	0.000	0.000
OR	24	4	0.032	0.000	0.084	0.018	0.043	0.006	0.000	0.024	0.000	0.000
OR	28	4	0.021	0.000	0.063	0.000	0.036	0.011	0.000	0.042	0.000	0.020
OR	32	4	0.009	0.000	0.038	0.000	0.020	0.015	0.000	0.044	0.000	0.022
OR	36	4	0.006	0.000	0.025	0.000	0.018	0.025	0.000	0.061	0.000	0.038
OR	40	4	0.003	0.000	0.021	0.000	0.000	0.033	0.000	0.082	0.018	0.045
OR	44	4	0.002	0.000	0.021	0.000	0.000	0.044	0.000	0.098	0.019	0.063
OR	48	4	0.001	0.000	0.019	0.000	0.000	0.058	0.000	0.127	0.034	0.082
OR	52	4	0.001	0.000	0.000	0.000	0.000	0.075	0.018	0.146	0.045	0.102
OR	4	5	0.389	0.285	0.493	0.354	0.429	0.000	0.000	0.000	0.000	0.000
OR	8	5	0.284	0.184	0.395	0.244	0.324	0.000	0.000	0.000	0.000	0.000

OR	12	5	0.195	0.113	0.286	0.161	0.226	0.000	0.000	0.000	0.000	0.000
OR	16	5	0.119	0.056	0.193	0.091	0.144	0.000	0.000	0.000	0.000	0.000
OR	20	5	0.076	0.018	0.143	0.043	0.100	0.001	0.000	0.000	0.000	0.000
OR	24	5	0.043	0.000	0.109	0.020	0.059	0.001	0.000	0.000	0.000	0.000
OR	28	5	0.030	0.000	0.084	0.017	0.043	0.001	0.000	0.019	0.000	0.000
OR	32	5	0.016	0.000	0.046	0.000	0.022	0.003	0.000	0.021	0.000	0.000
OR	36	5	0.010	0.000	0.039	0.000	0.020	0.005	0.000	0.021	0.000	0.000
OR	40	5	0.006	0.000	0.023	0.000	0.000	0.009	0.000	0.037	0.000	0.019
OR	44	5	0.005	0.000	0.023	0.000	0.000	0.013	0.000	0.043	0.000	0.020
OR	48	5	0.003	0.000	0.021	0.000	0.000	0.016	0.000	0.049	0.000	0.022
OR	52	5	0.002	0.000	0.020	0.000	0.000	0.024	0.000	0.064	0.000	0.039
OR	56	5	0.001	0.000	0.000	0.000	0.000	0.032	0.000	0.080	0.017	0.048
OR	4	6	0.389	0.285	0.493	0.354	0.429	0.000	0.000	0.000	0.000	0.000
OR	8	6	0.288	0.190	0.397	0.250	0.328	0.000	0.000	0.000	0.000	0.000
OR	12	6	0.206	0.121	0.303	0.174	0.237	0.000	0.000	0.000	0.000	0.000
OR	16	6	0.134	0.073	0.218	0.100	0.161	0.000	0.000	0.000	0.000	0.000
OR	20	6	0.090	0.020	0.167	0.060	0.117	0.000	0.000	0.000	0.000	0.000
OR	24	6	0.055	0.000	0.119	0.034	0.077	0.000	0.000	0.000	0.000	0.000
OR	28	6	0.040	0.000	0.102	0.019	0.057	0.000	0.000	0.000	0.000	0.000
OR	32	6	0.024	0.000	0.063	0.000	0.037	0.000	0.000	0.000	0.000	0.000
OR	36	6	0.014	0.000	0.053	0.000	0.022	0.001	0.000	0.001	0.000	0.000
OR	40	6	0.010	0.000	0.038	0.000	0.020	0.001	0.000	0.018	0.000	0.000
OR	44	6	0.006	0.000	0.025	0.000	0.017	0.003	0.000	0.021	0.000	0.000
OR	48	6	0.004	0.000	0.023	0.000	0.000	0.004	0.000	0.021	0.000	0.000
OR	52	6	0.003	0.000	0.020	0.000	0.000	0.007	0.000	0.036	0.000	0.017
OR	56	6	0.001	0.000	0.000	0.000	0.000	0.009	0.000	0.036	0.000	0.020

Figures with all performance measures

Below are figures containing simulation results for all scenarios and performance measures.


3 Stations, Station occupancy not assumed when Area occupied
Presence not used
rate
0.5
0.4
0.3
0.2
0.1
0.0
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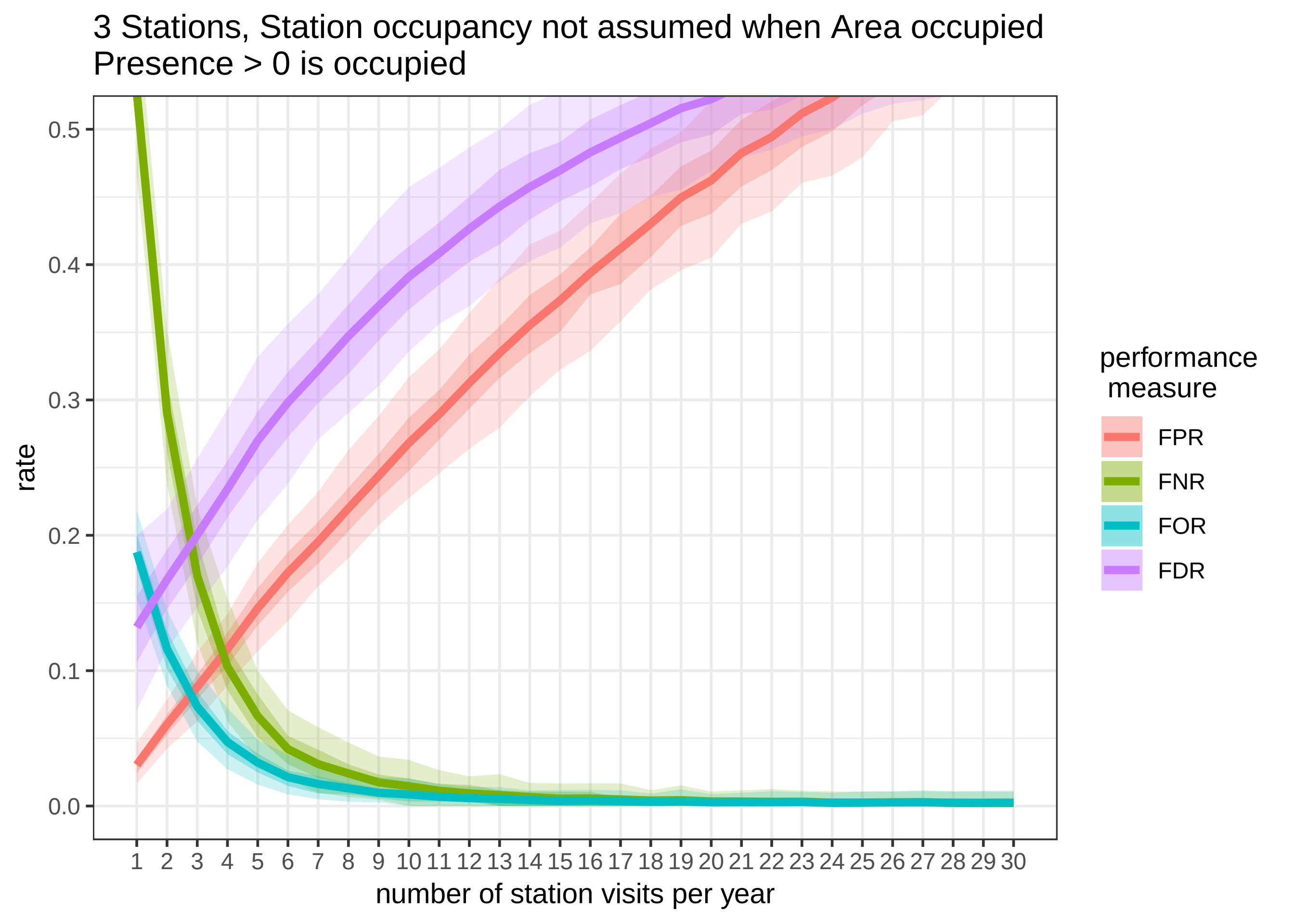
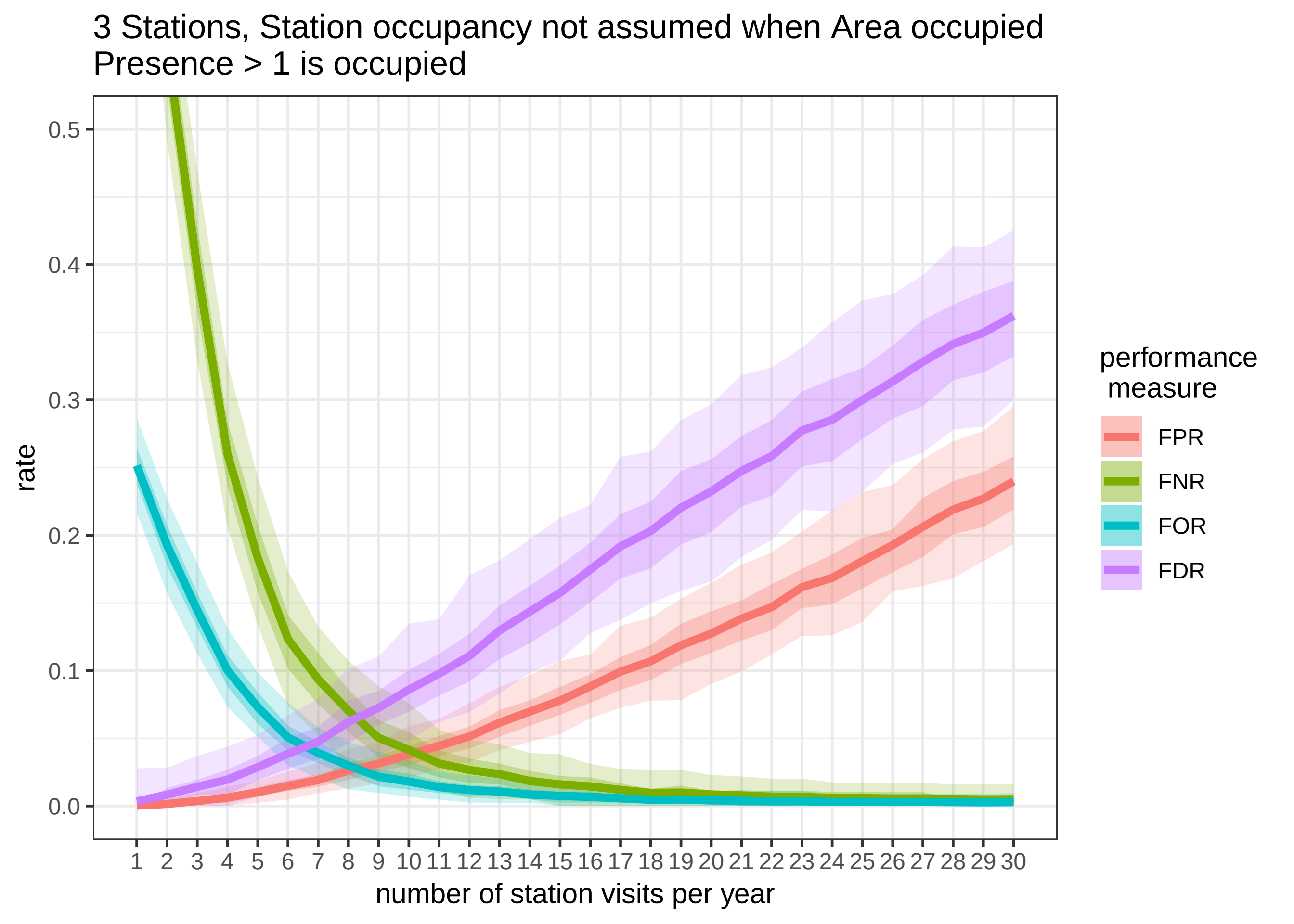
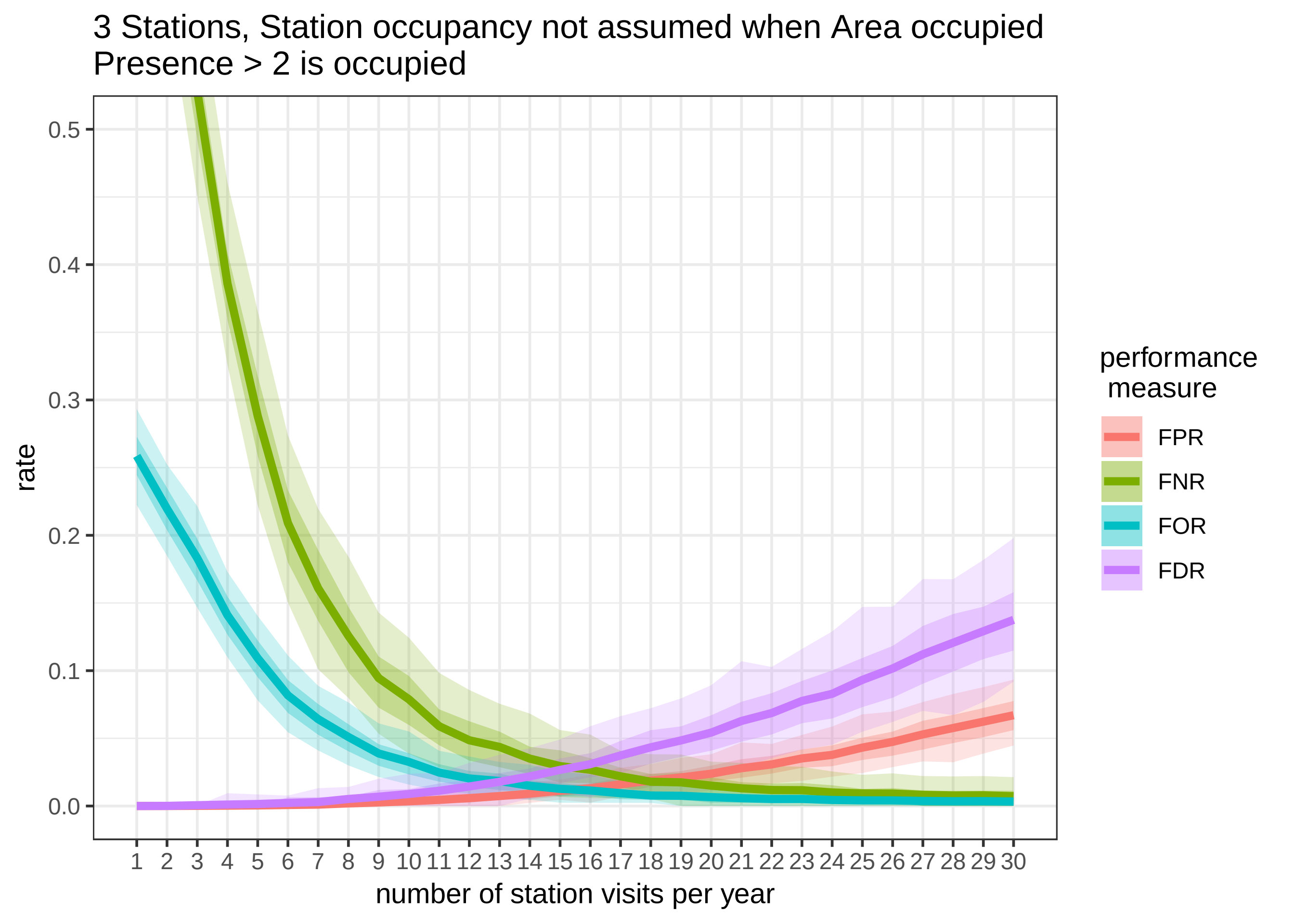
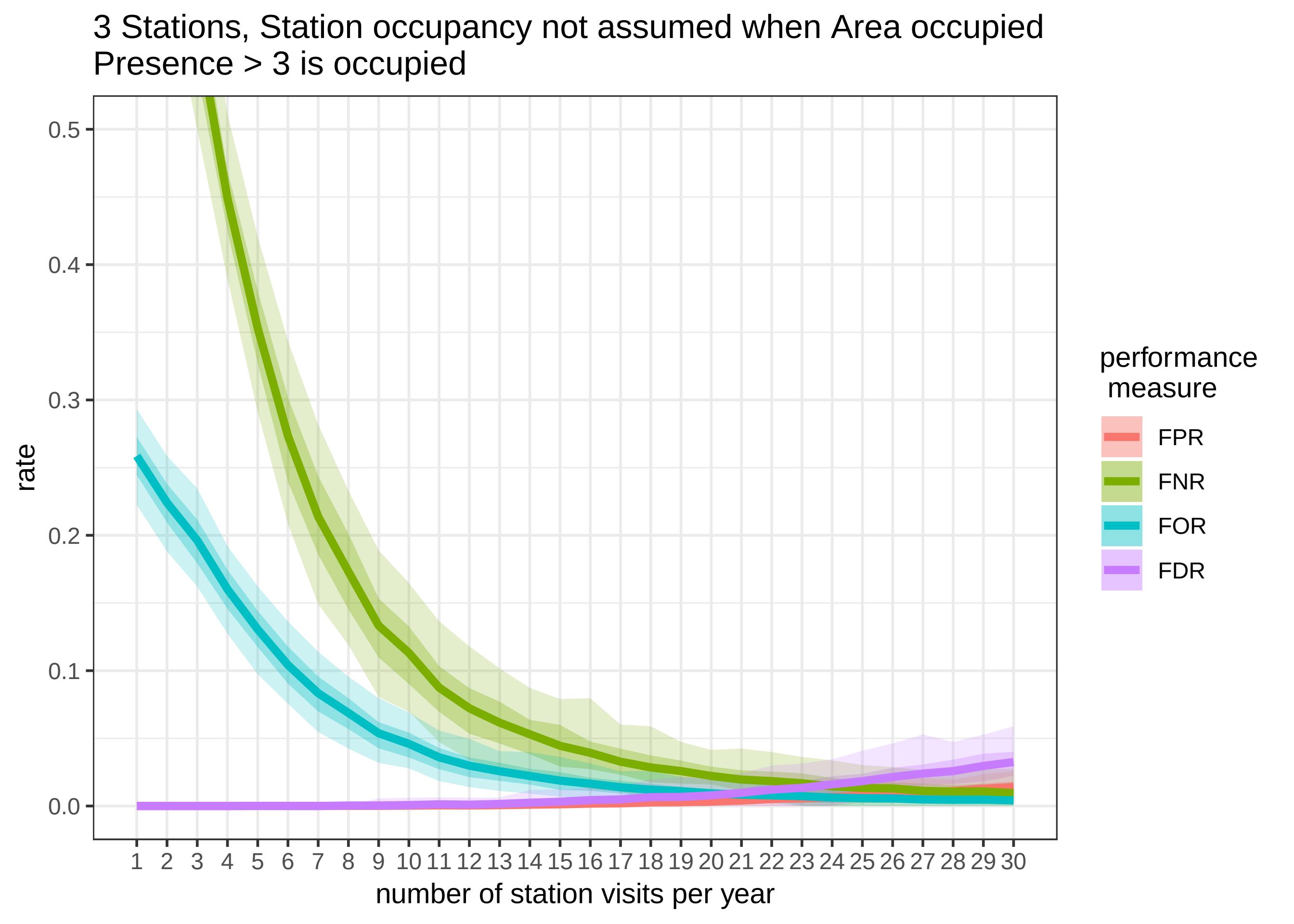
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



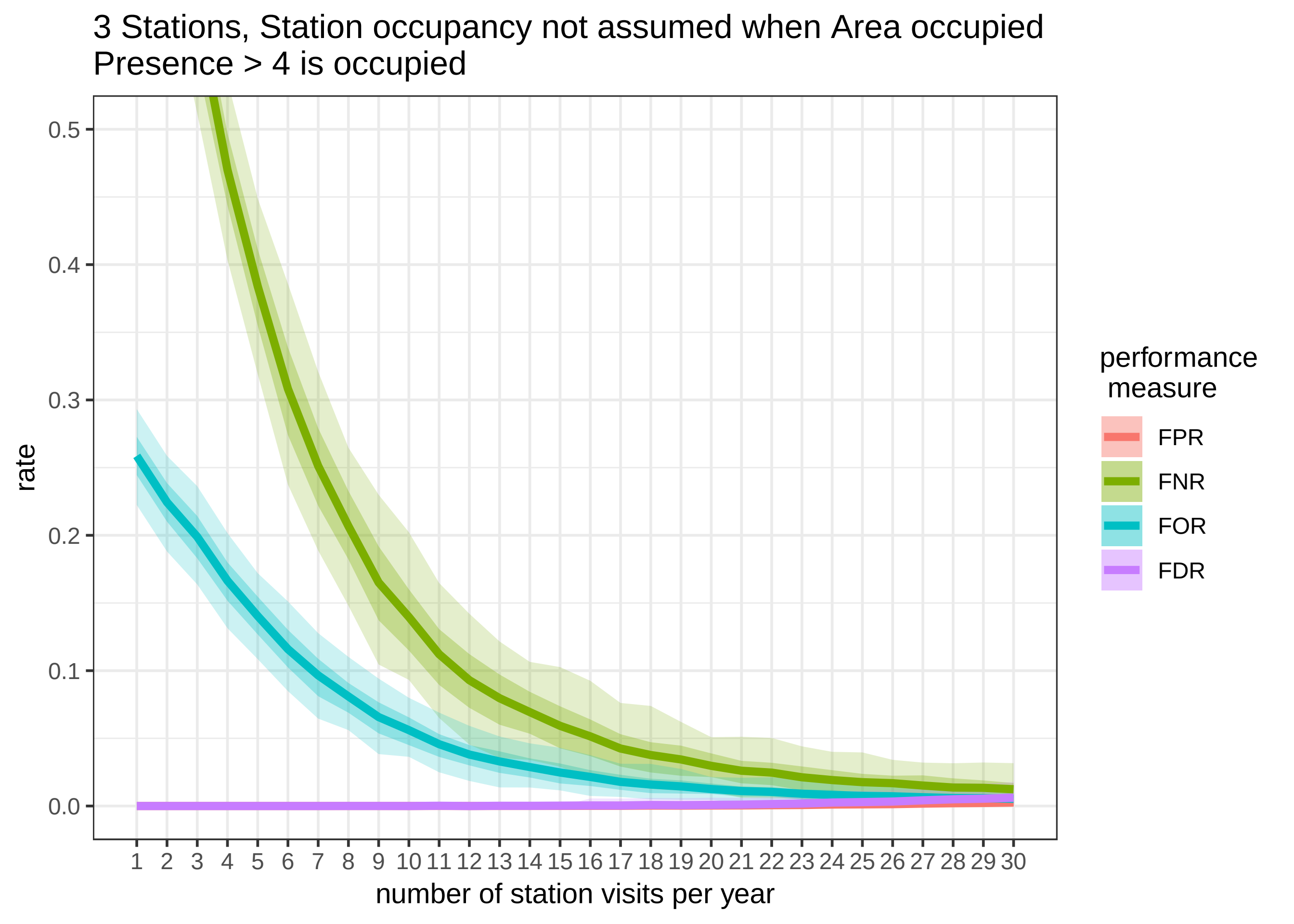
3 Stations, Station occupancy not assumed when Area occupied
Presence > 0 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

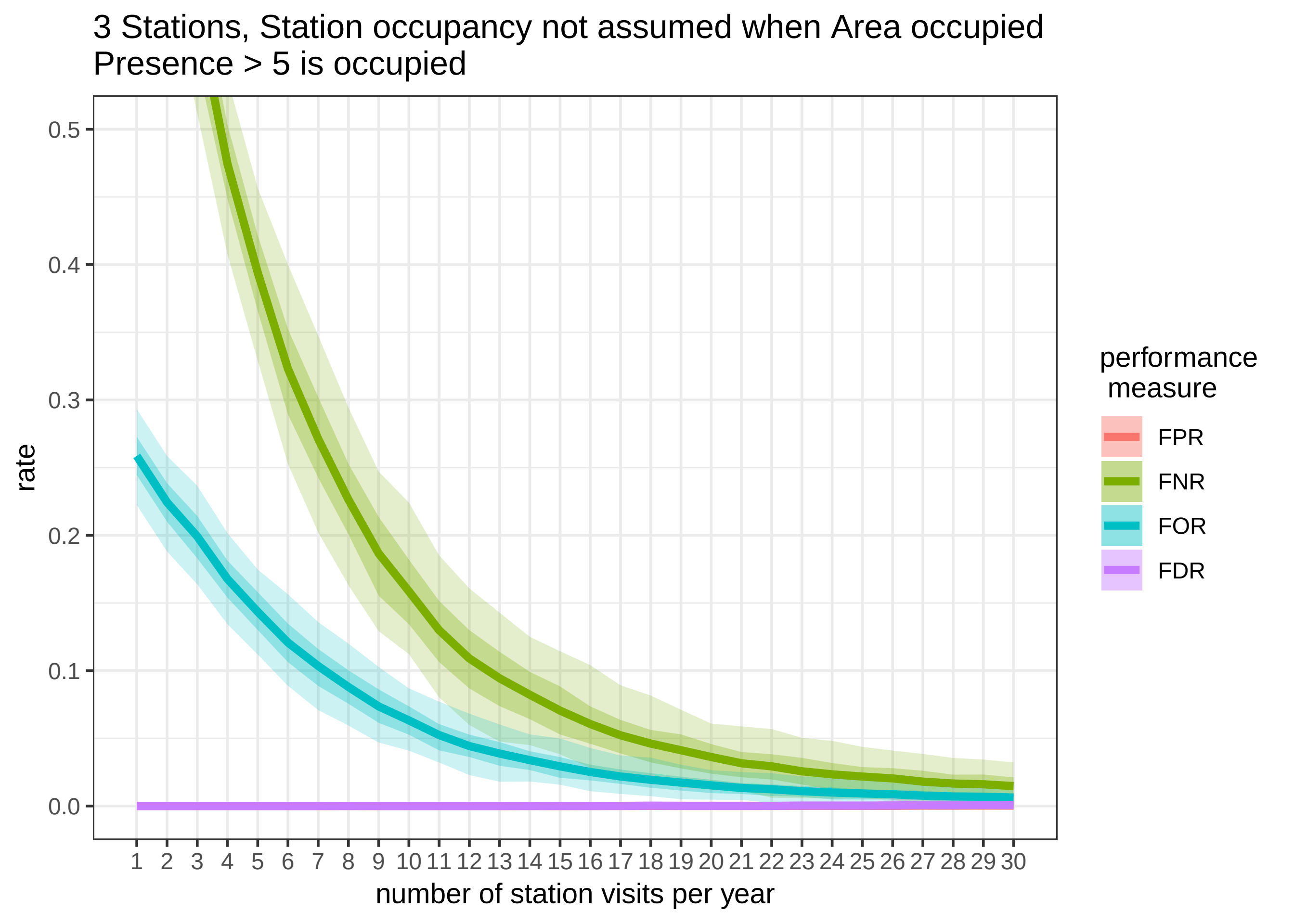

3 Stations, Station occupancy not assumed when Area occupied
Presence > 1 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

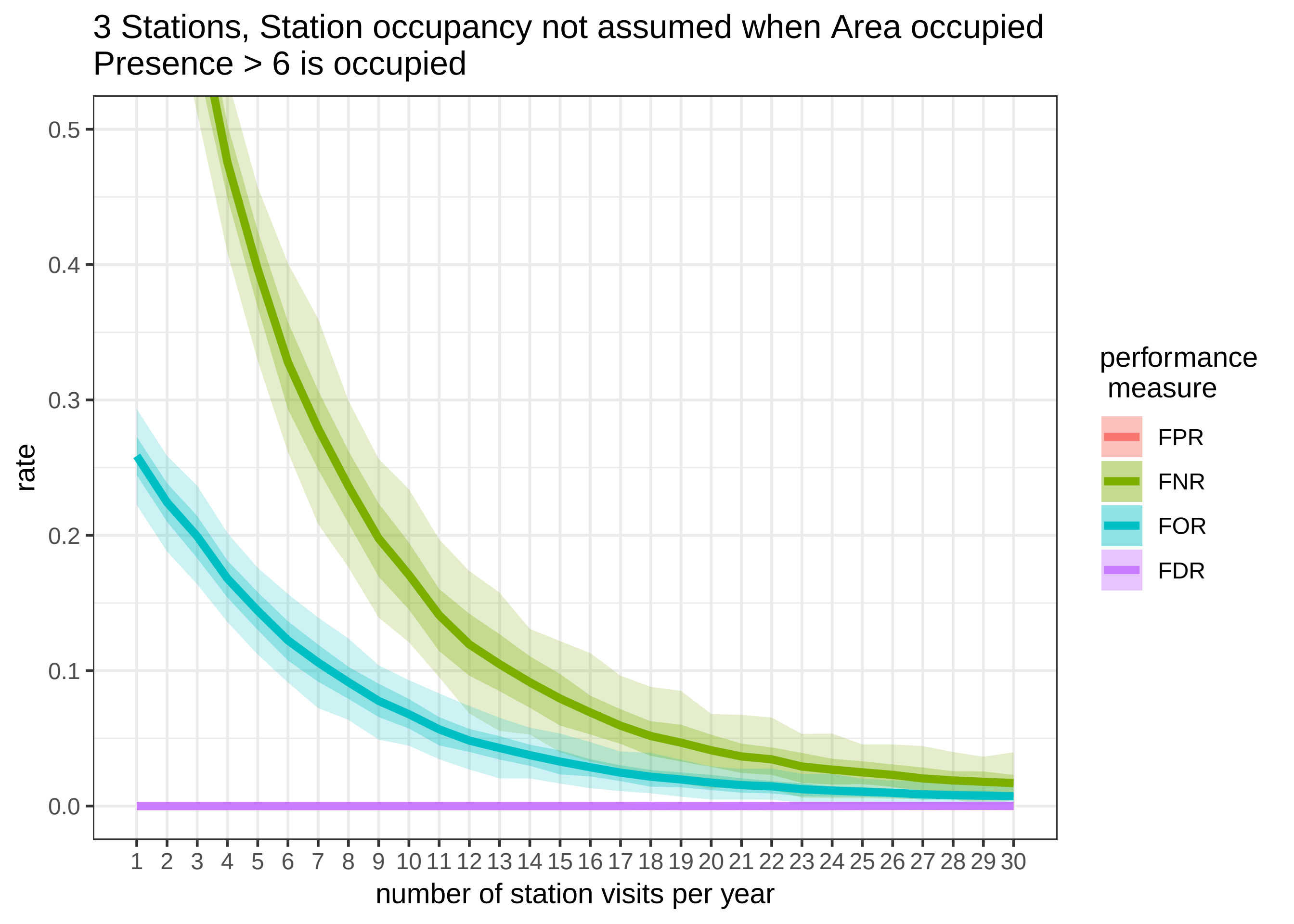

3 Stations, Station occupancy not assumed when Area occupied
Presence > 2 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



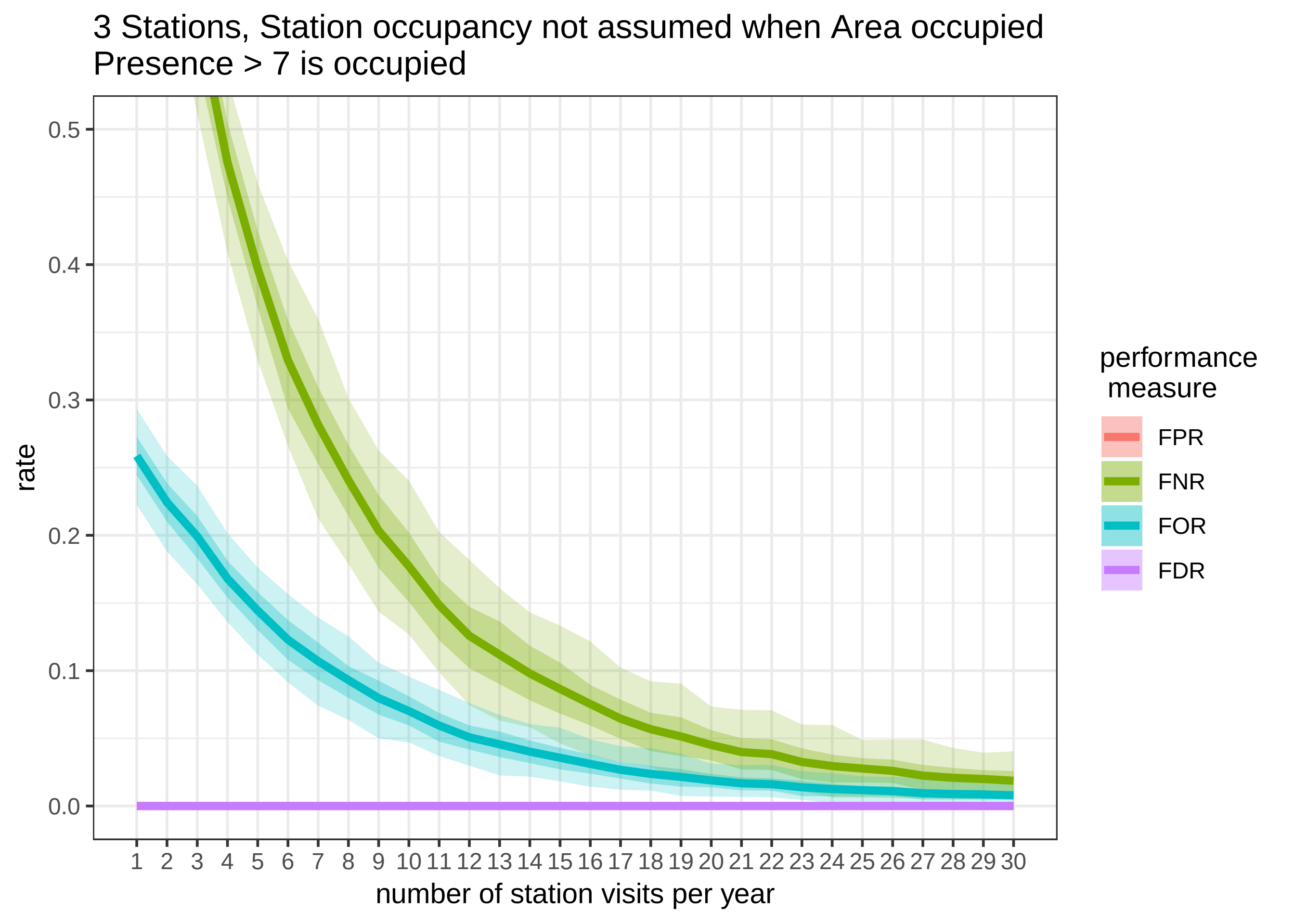
3 Stations, Station occupancy not assumed when Area occupied
Presence > 3 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance
measure
FPR
FNR
FOR
FDR

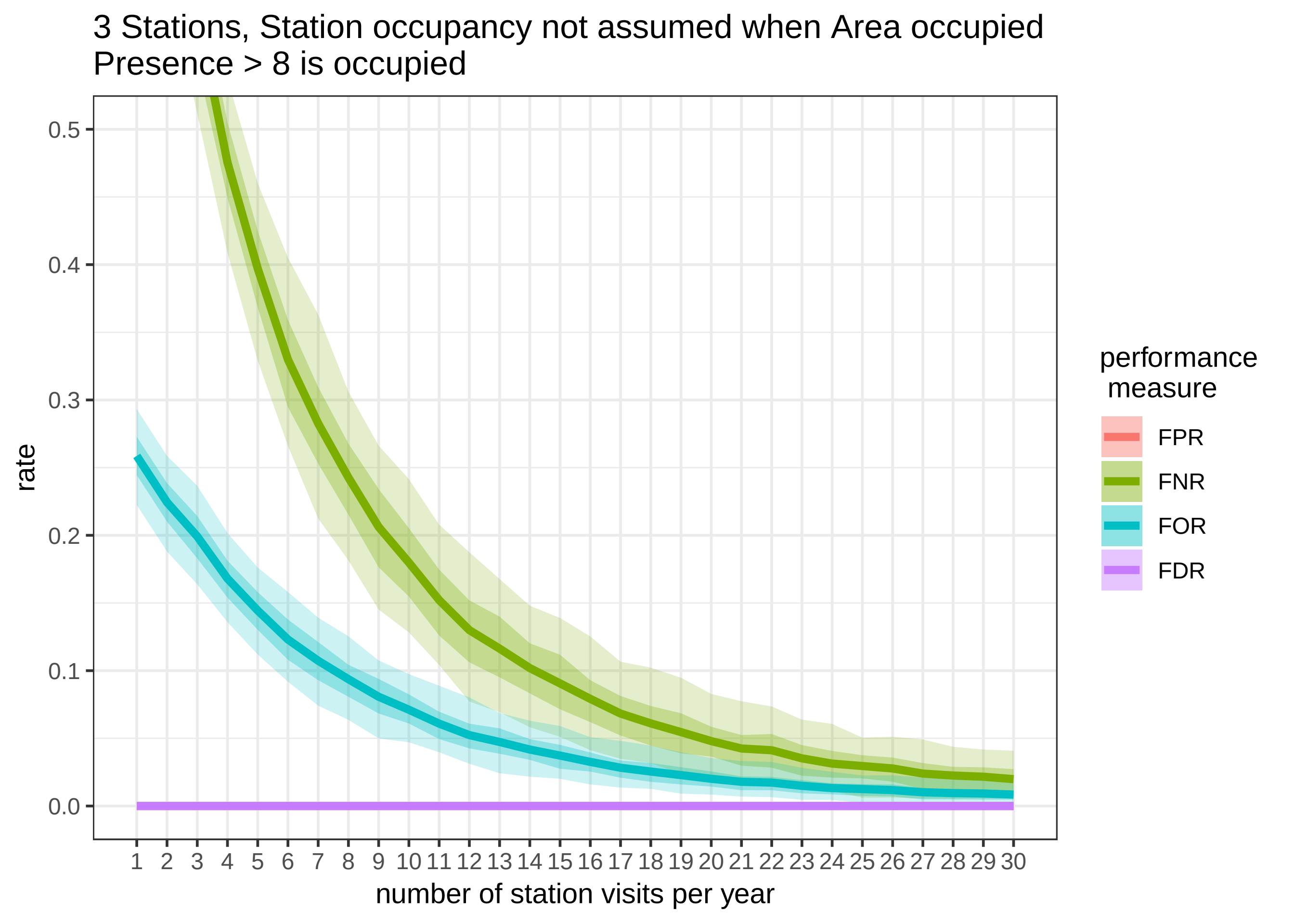

3 Stations, Station occupancy not assumed when Area occupied
Presence > 4 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

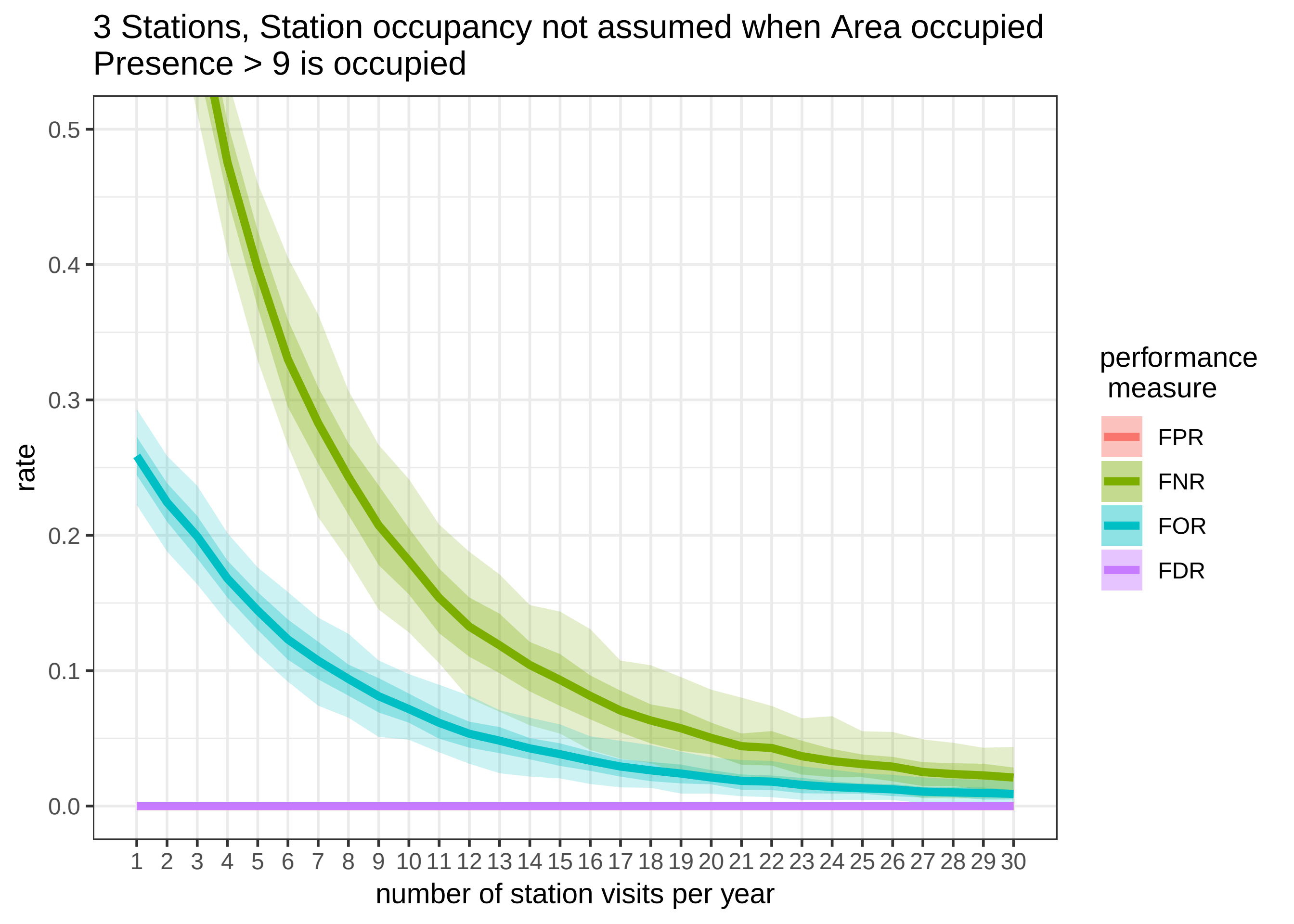

3 Stations, Station occupancy not assumed when Area occupied
Presence > 5 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



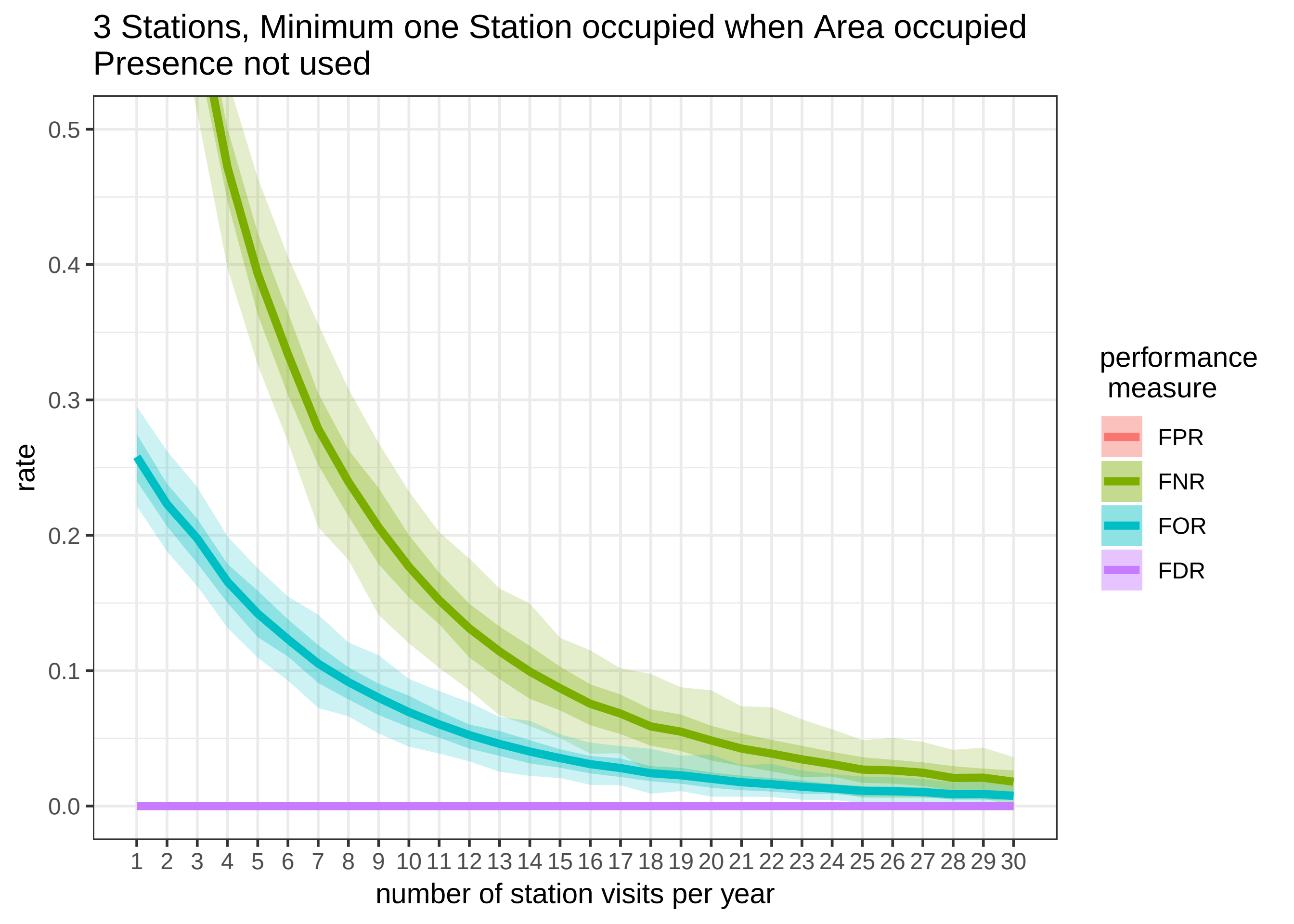
3 Stations, Station occupancy not assumed when Area occupied
Presence > 6 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR


3 Stations, Station occupancy not assumed when Area occupied
Presence > 7 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

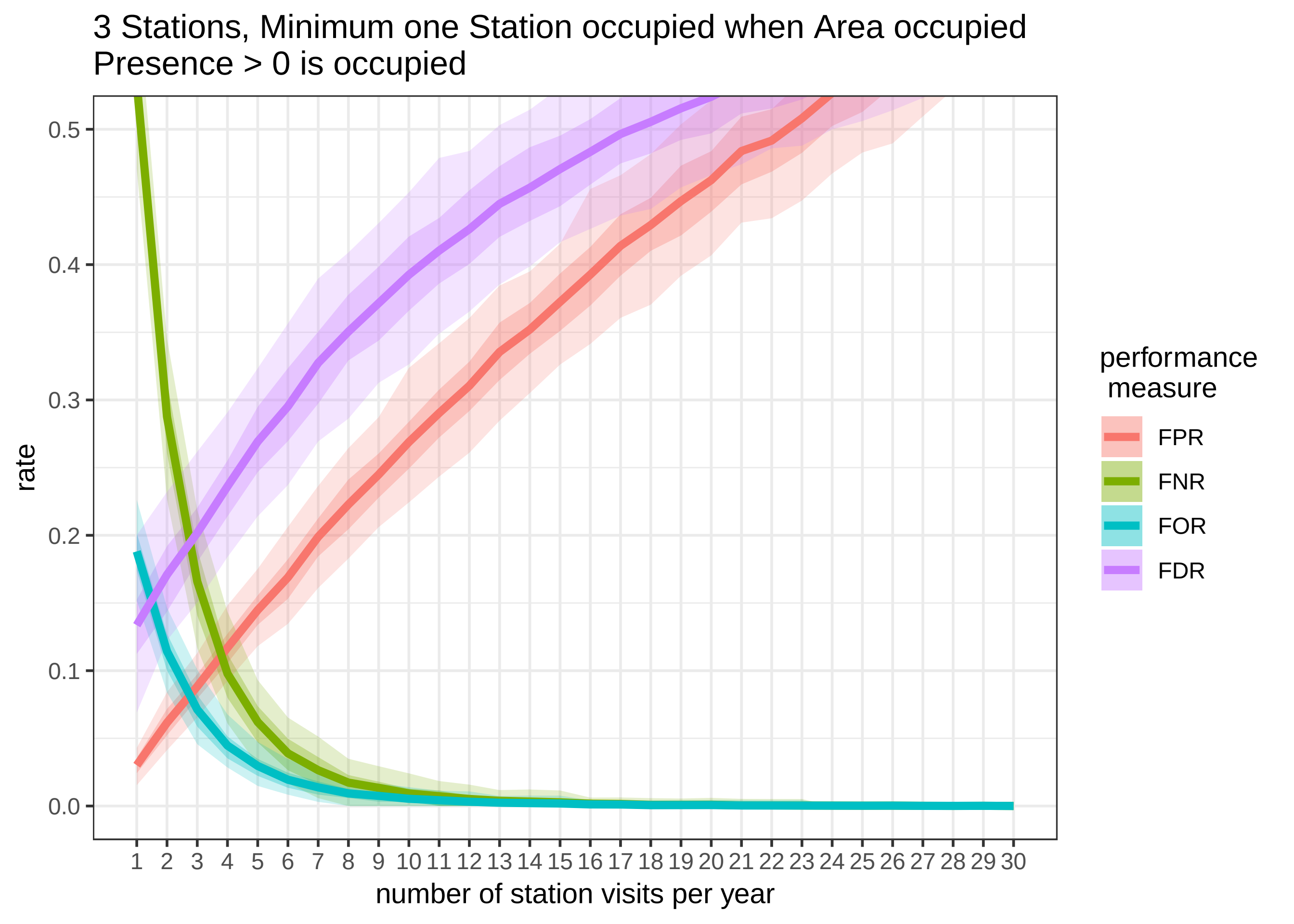

3 Stations, Station occupancy not assumed when Area occupied
Presence > 8 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

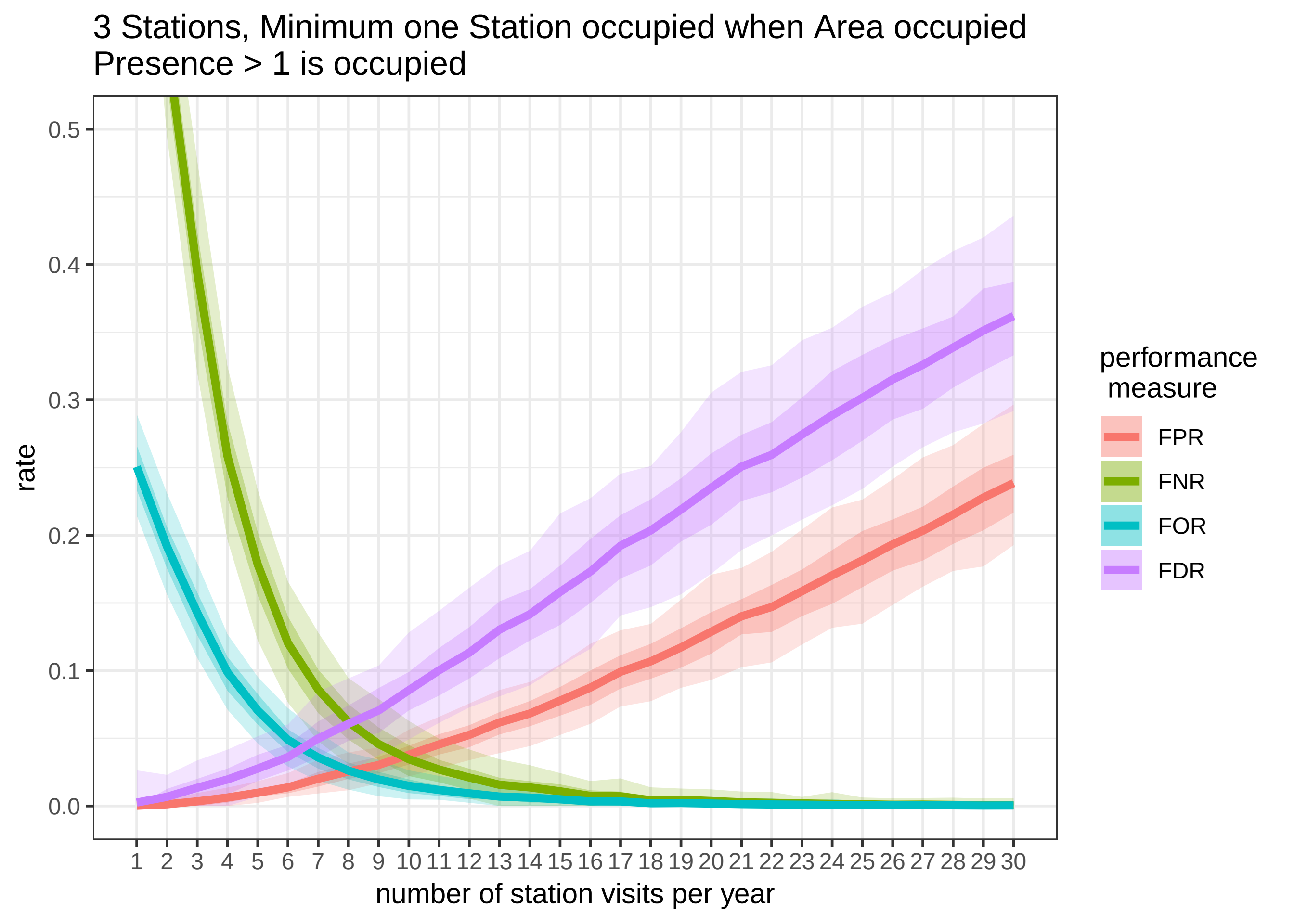


3 Stations, Station occupancy not assumed when Area occupied
Presence > 9 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
number of station visits per year
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
performance measure
FPR
FNR
FOR
FDR

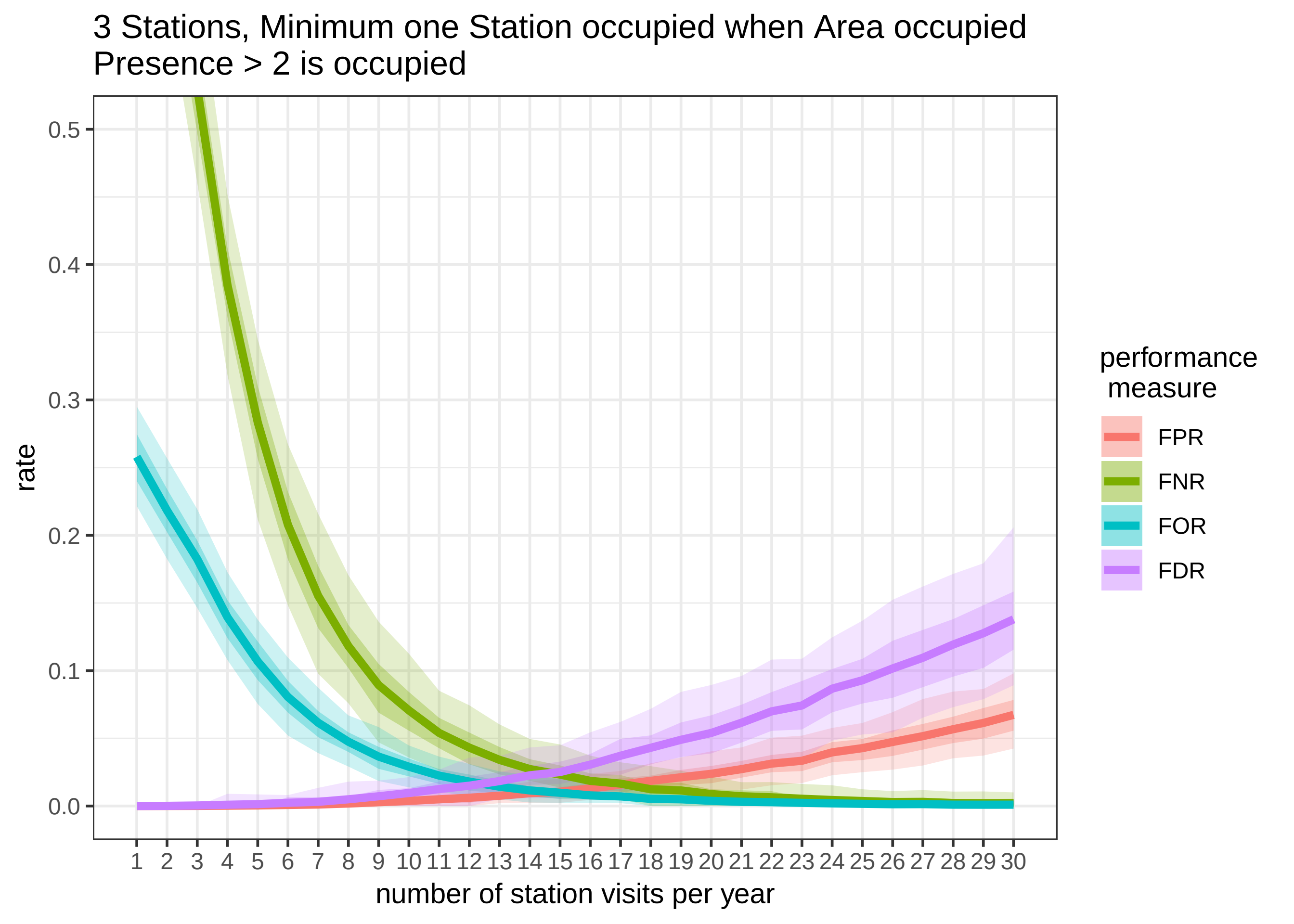


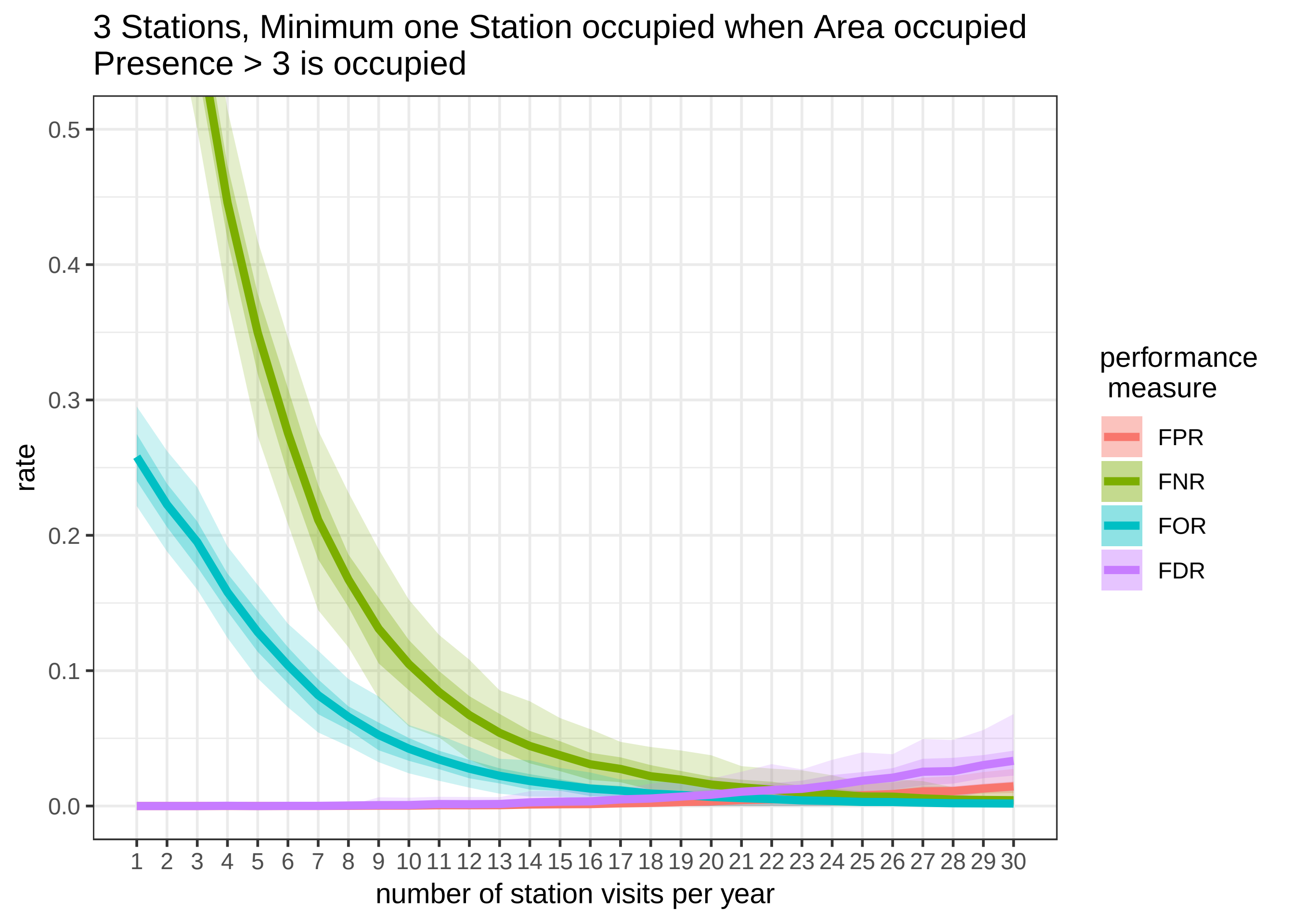
3 Stations, Minimum one Station occupied when Area occupied
Presence not used
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance
measure
FPR
FNR
FOR
FDR

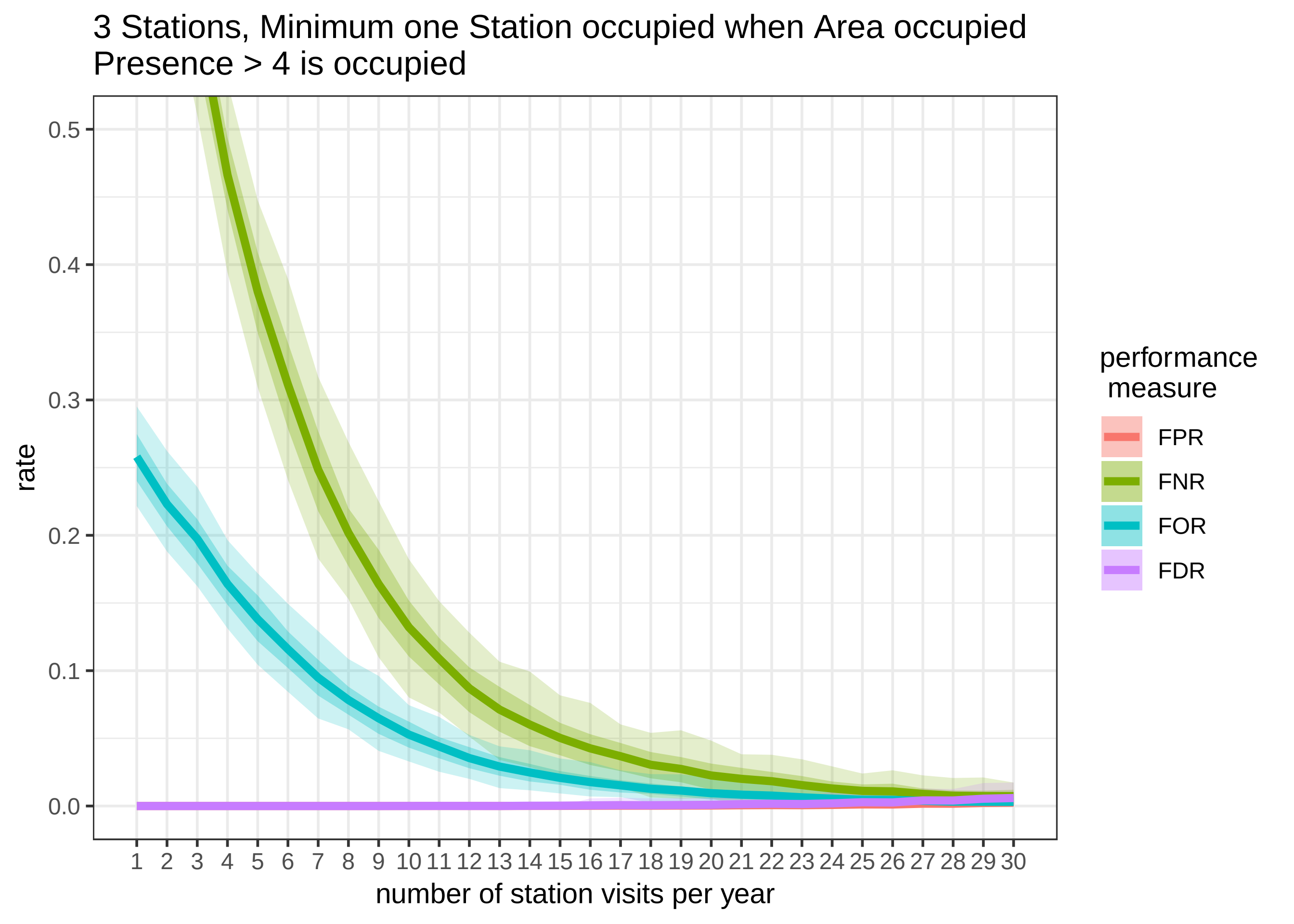

3 Stations, Minimum one Station occupied when Area occupied
Presence > 0 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



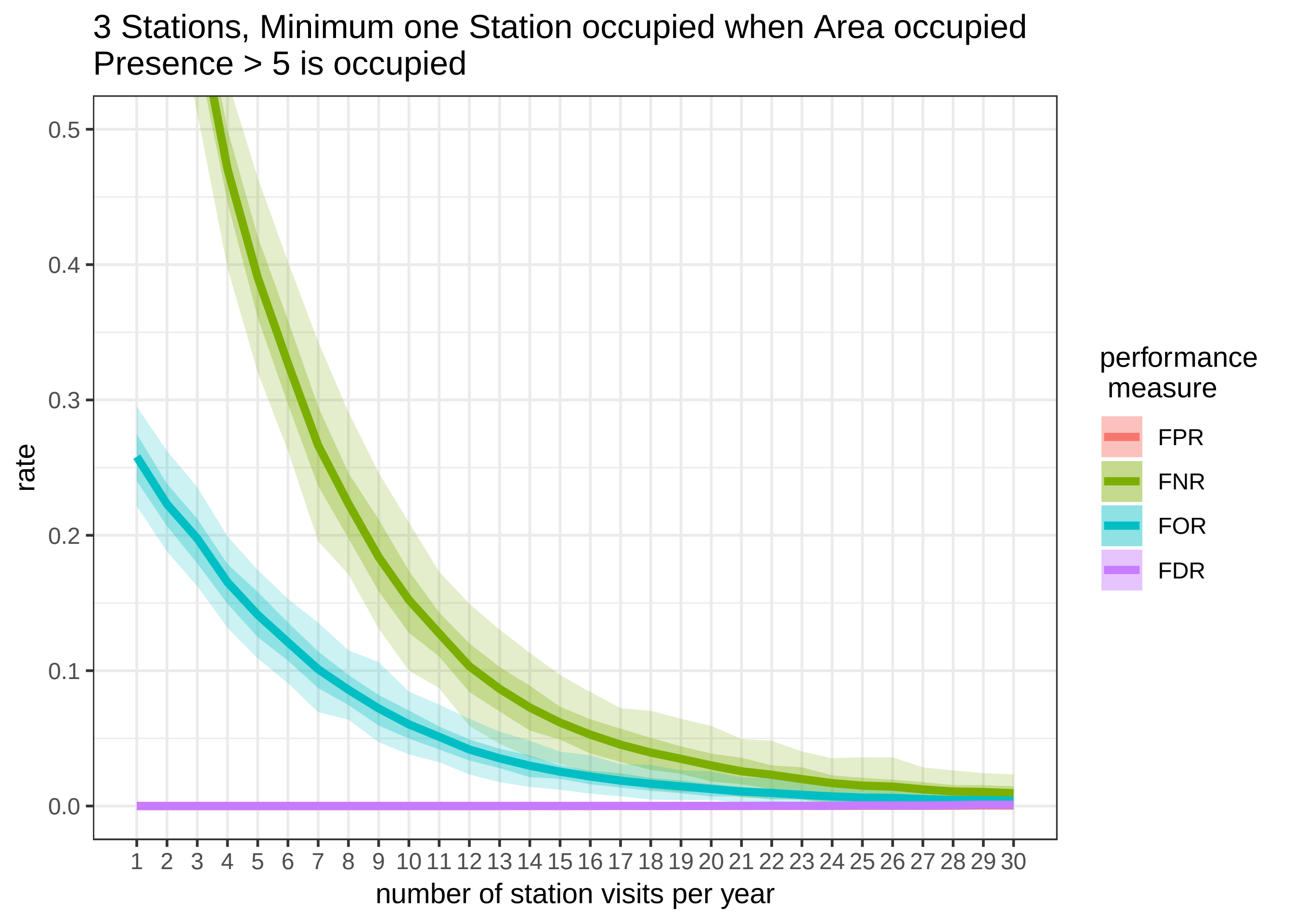
3 Stations, Minimum one Station occupied when Area occupied
Presence > 1 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

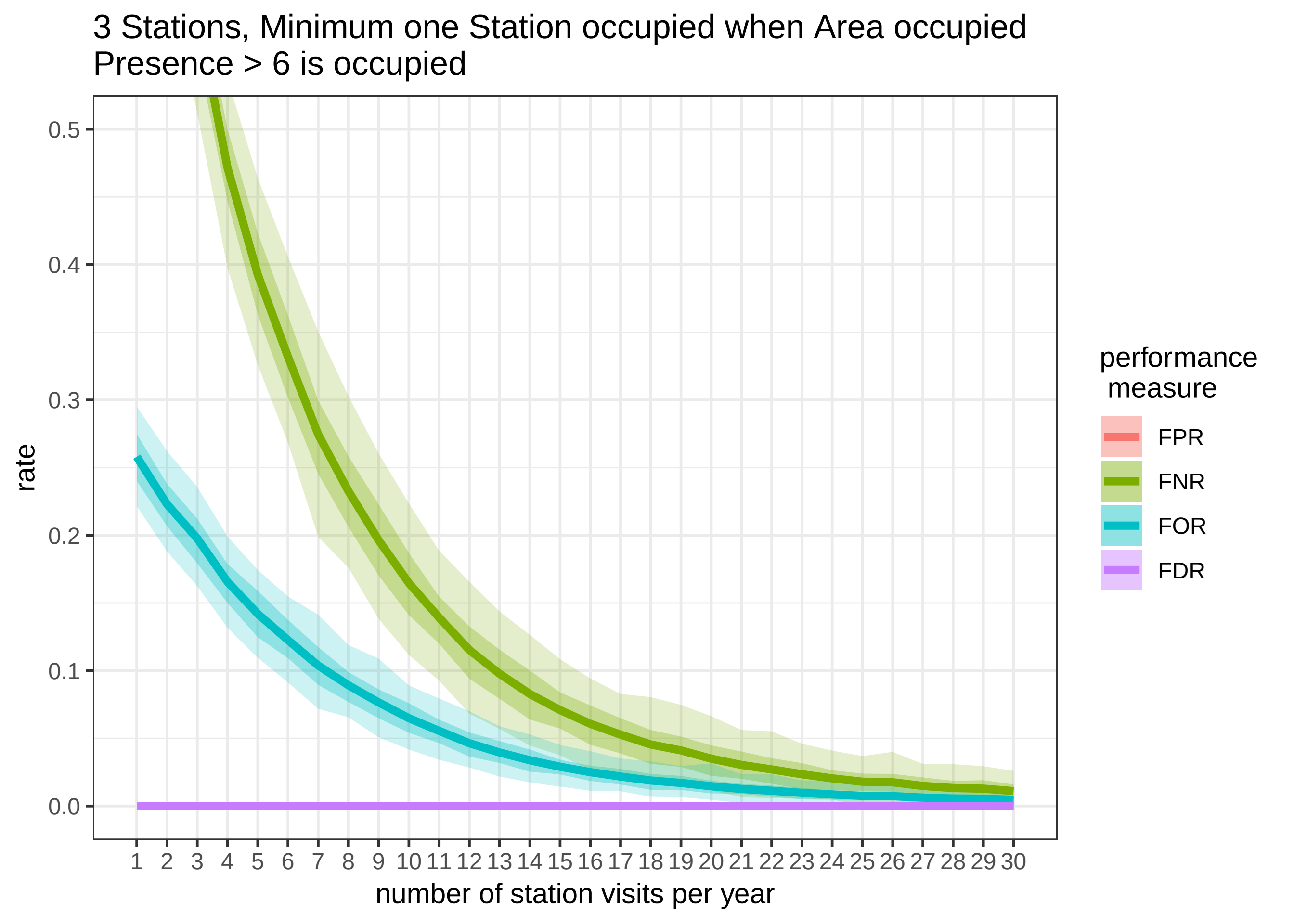

3 Stations, Minimum one Station occupied when Area occupied
Presence > 2 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

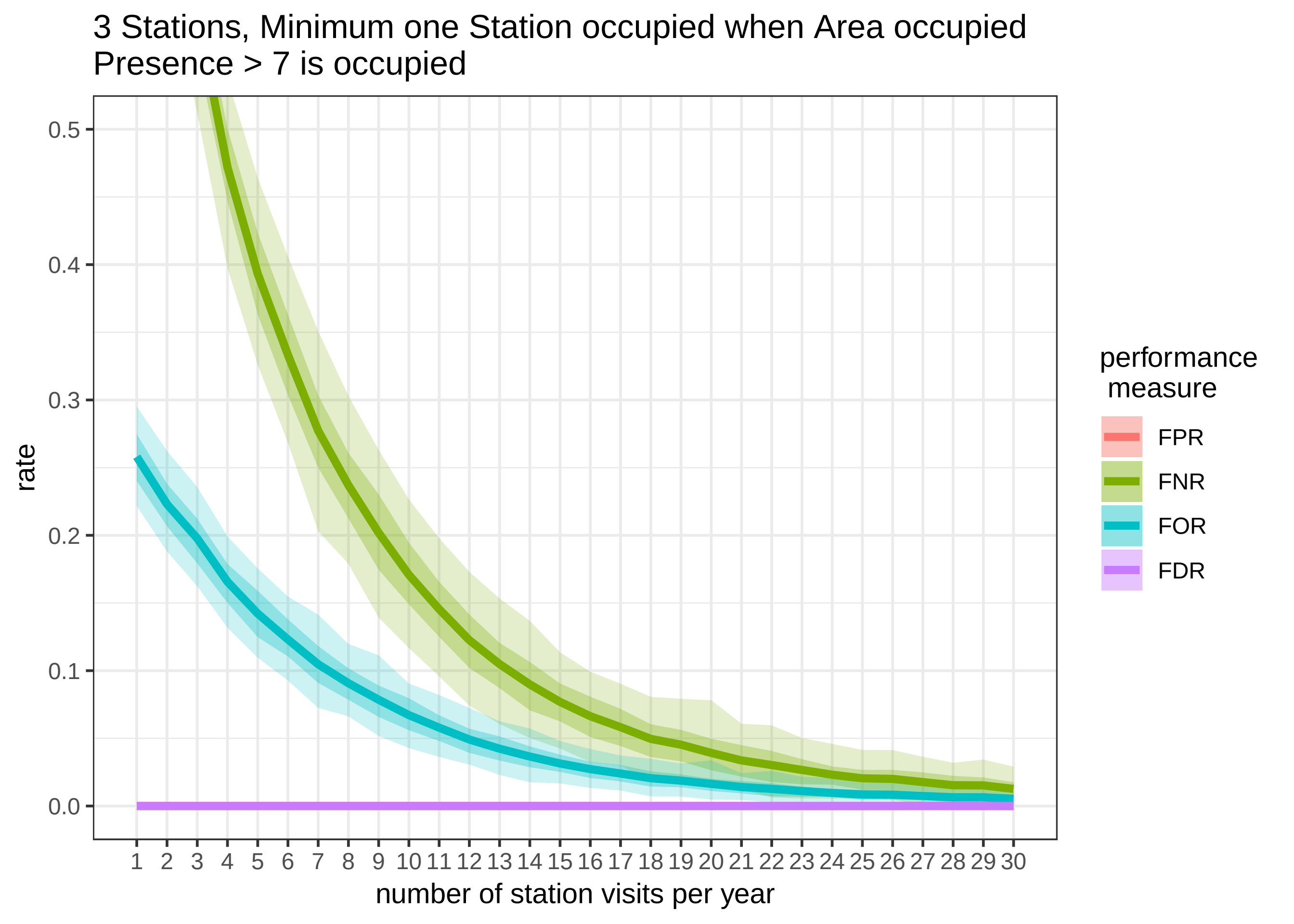

3 Stations, Minimum one Station occupied when Area occupied
Presence > 3 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



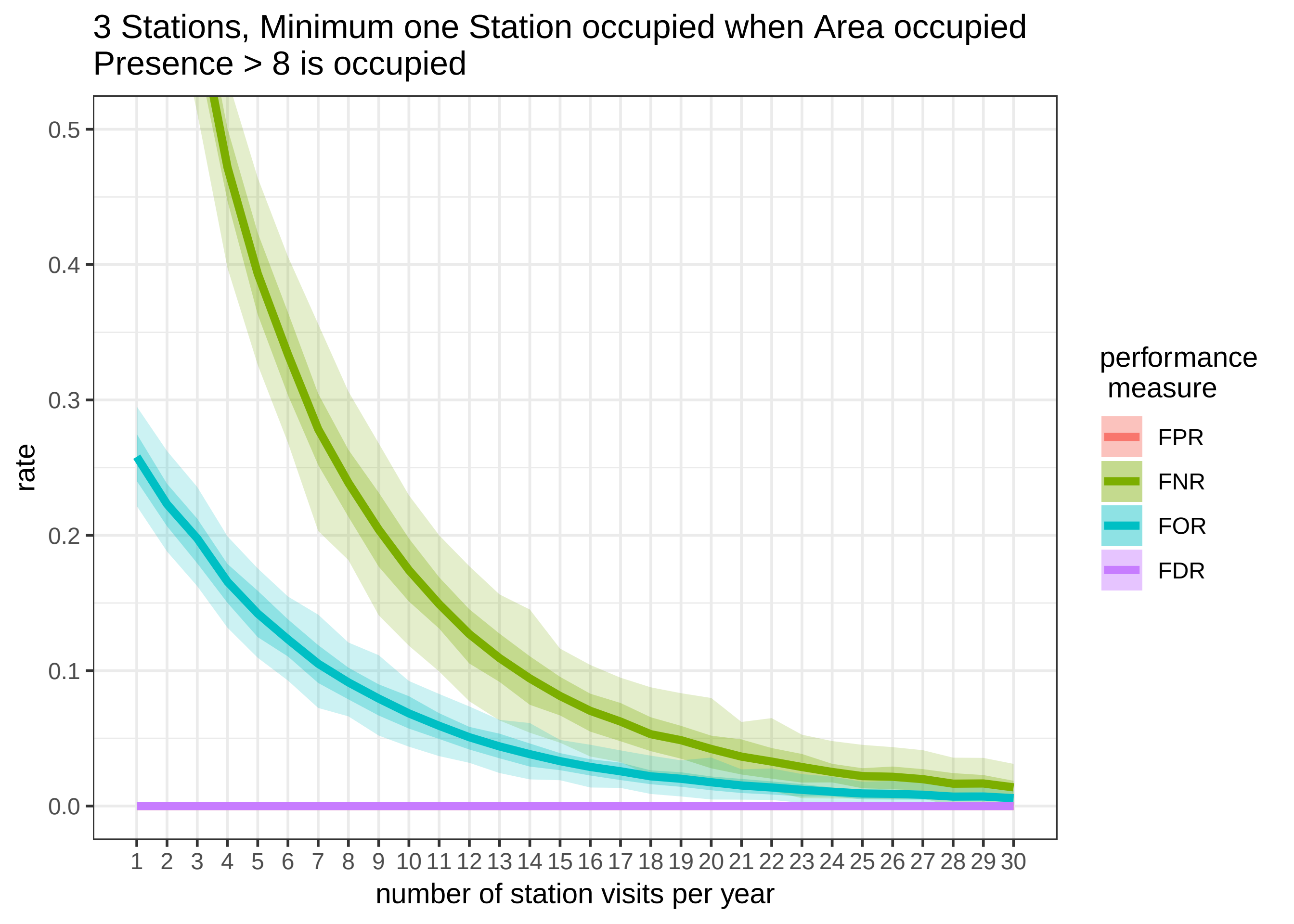
3 Stations, Minimum one Station occupied when Area occupied
Presence > 4 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR


3 Stations, Minimum one Station occupied when Area occupied
Presence > 5 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

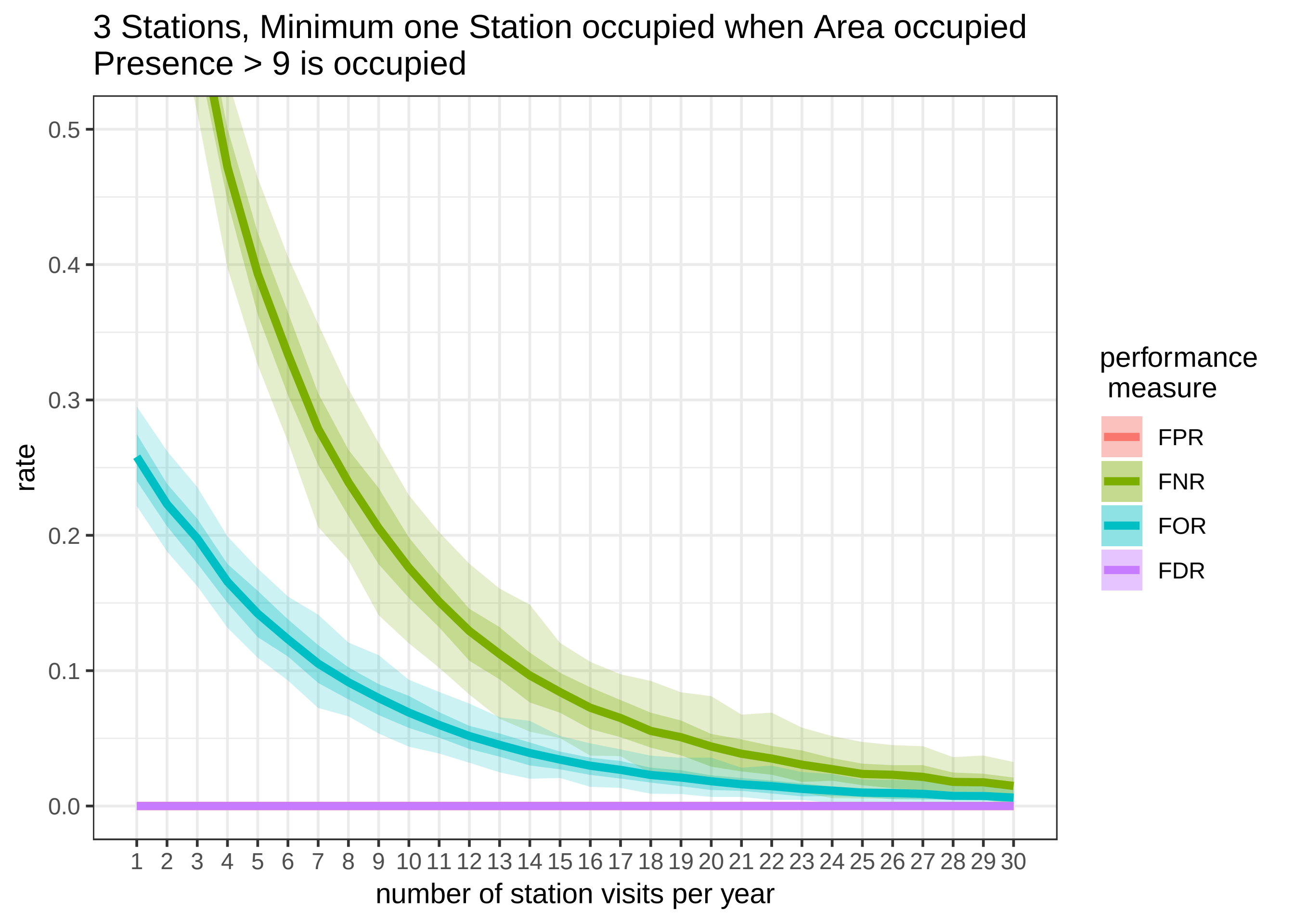

3 Stations, Minimum one Station occupied when Area occupied
Presence > 6 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



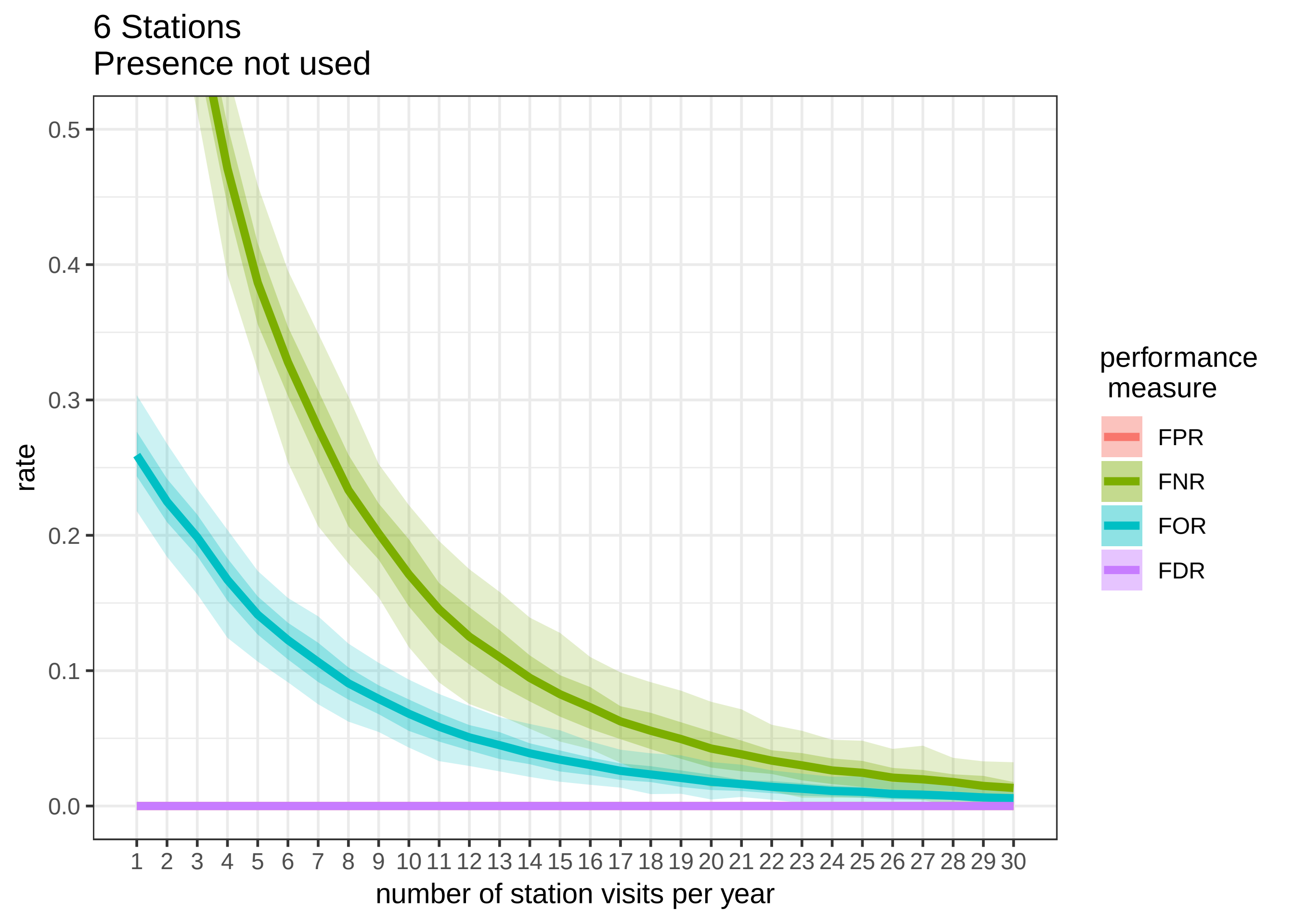
3 Stations, Minimum one Station occupied when Area occupied
Presence > 7 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

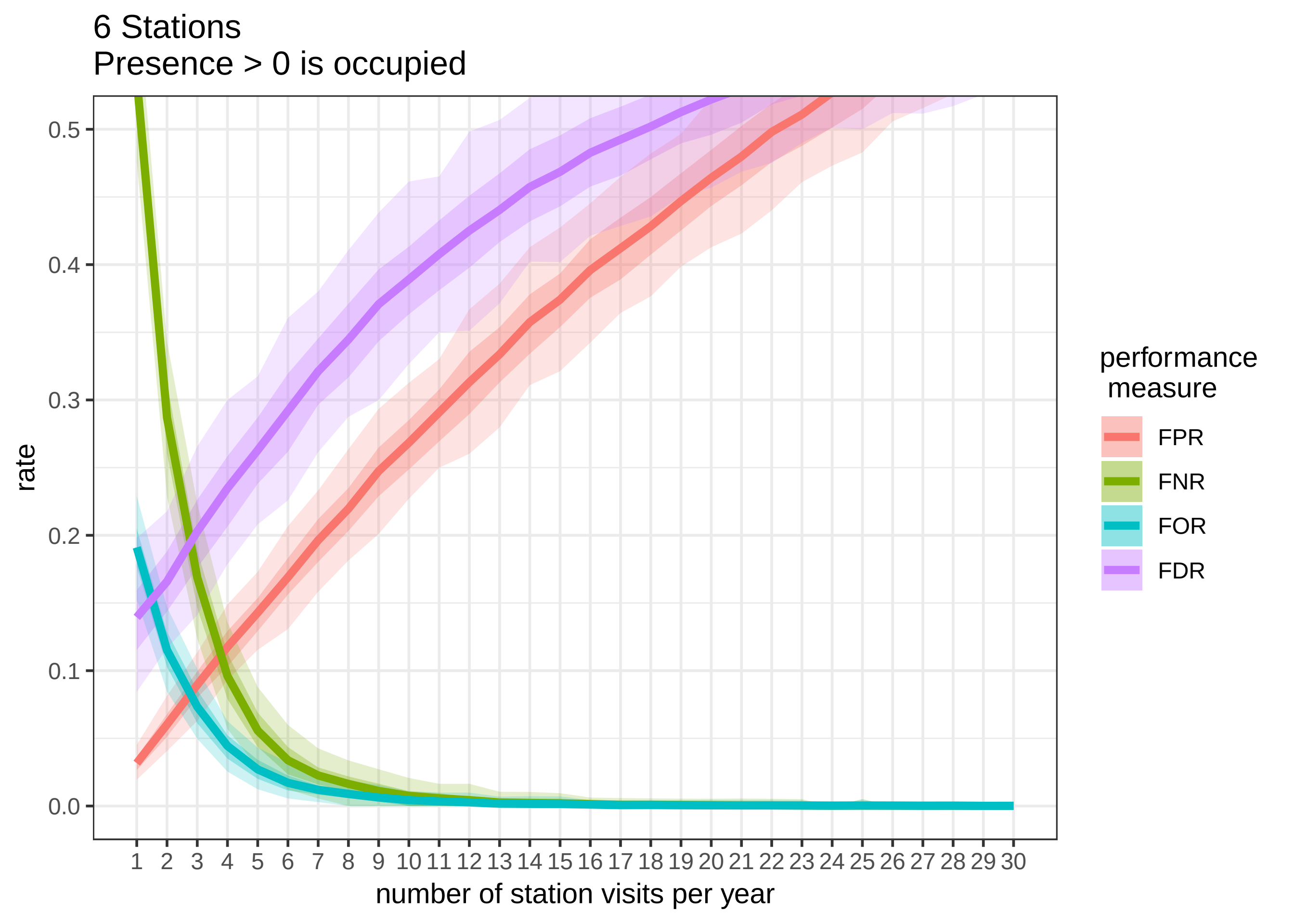


3 Stations, Minimum one Station occupied when Area occupied
Presence > 8 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

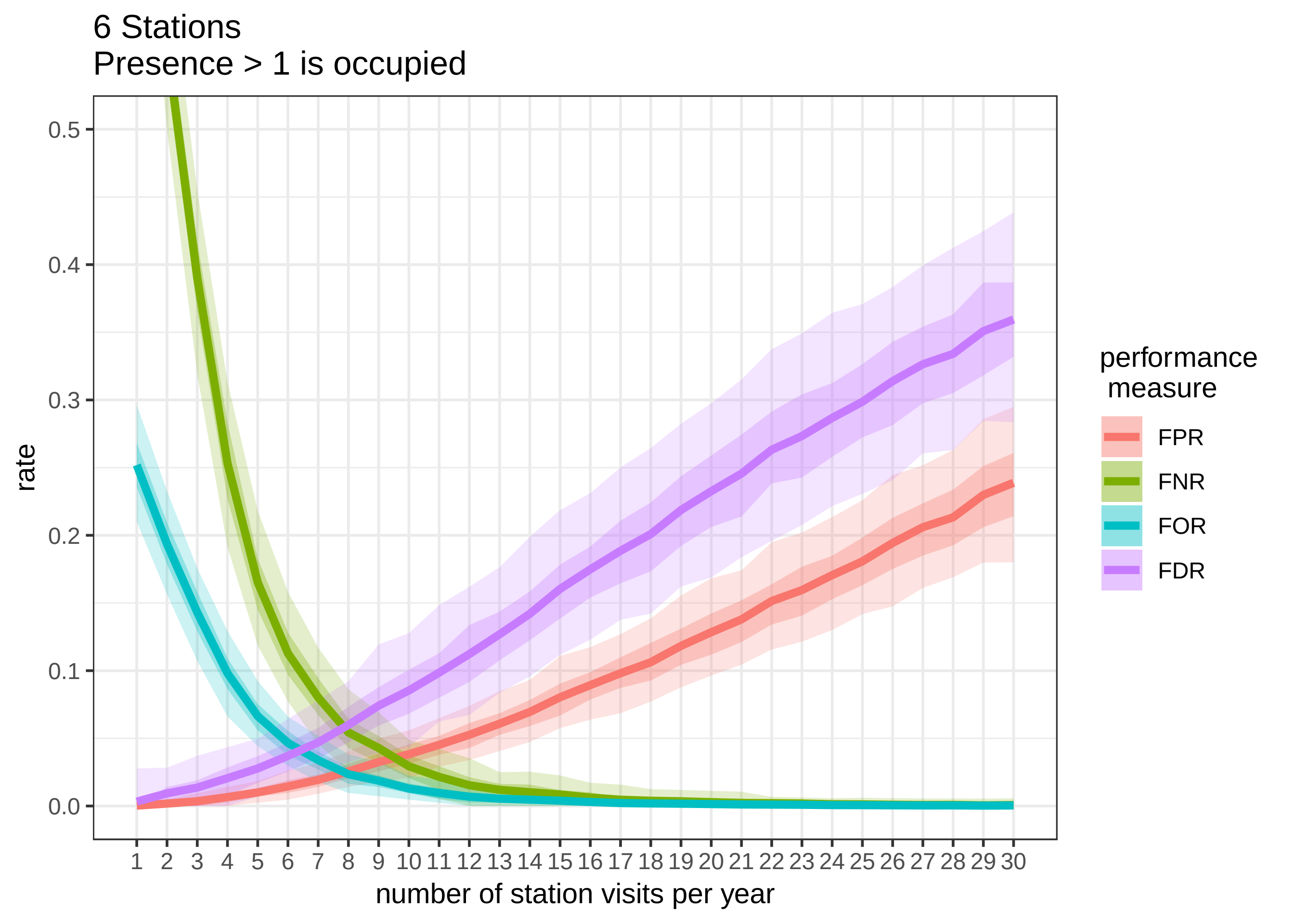


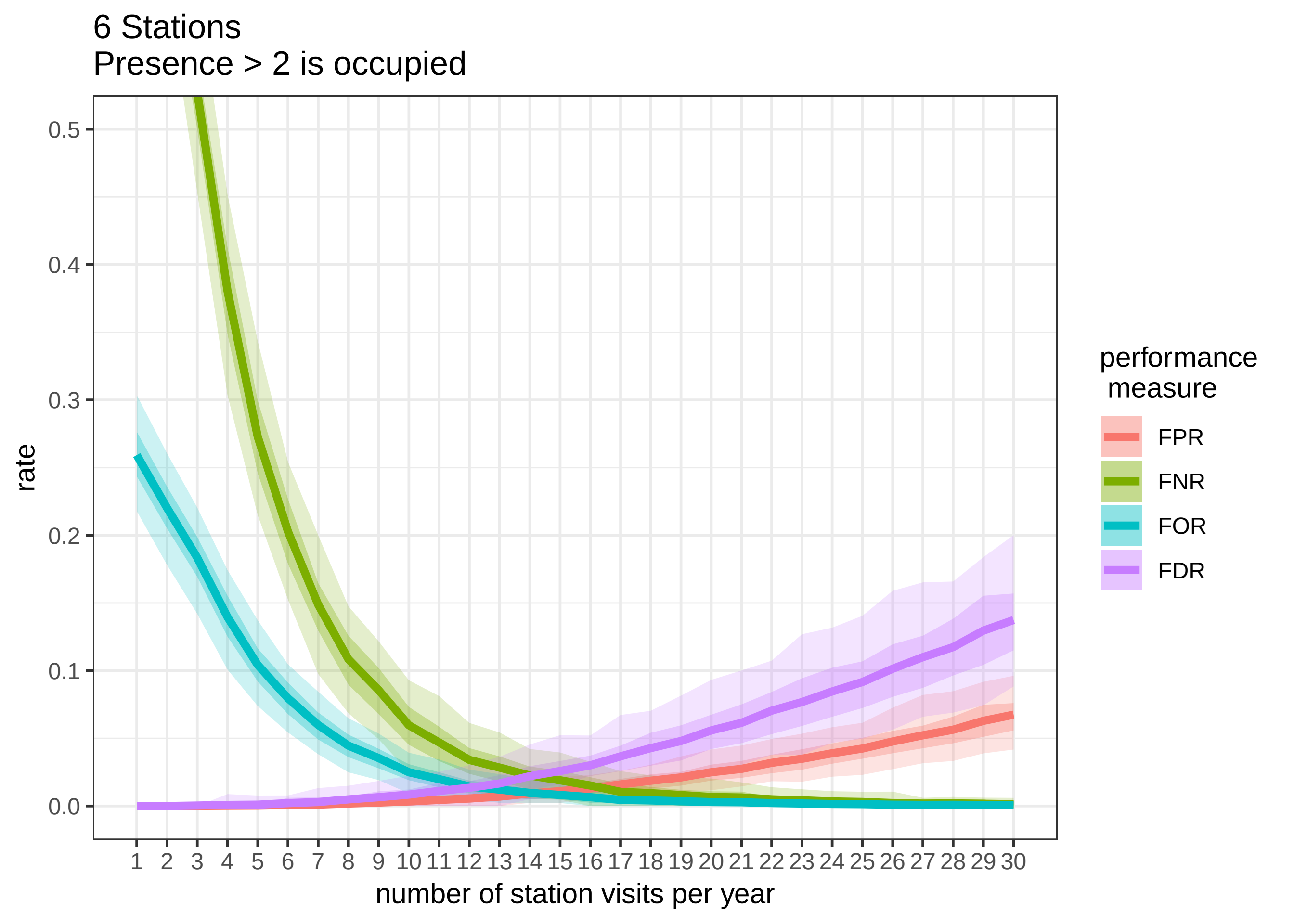
3 Stations, Minimum one Station occupied when Area occupied
Presence > 9 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
number of station visits per year
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
performance measure
FPR
FNR
FOR
FDR

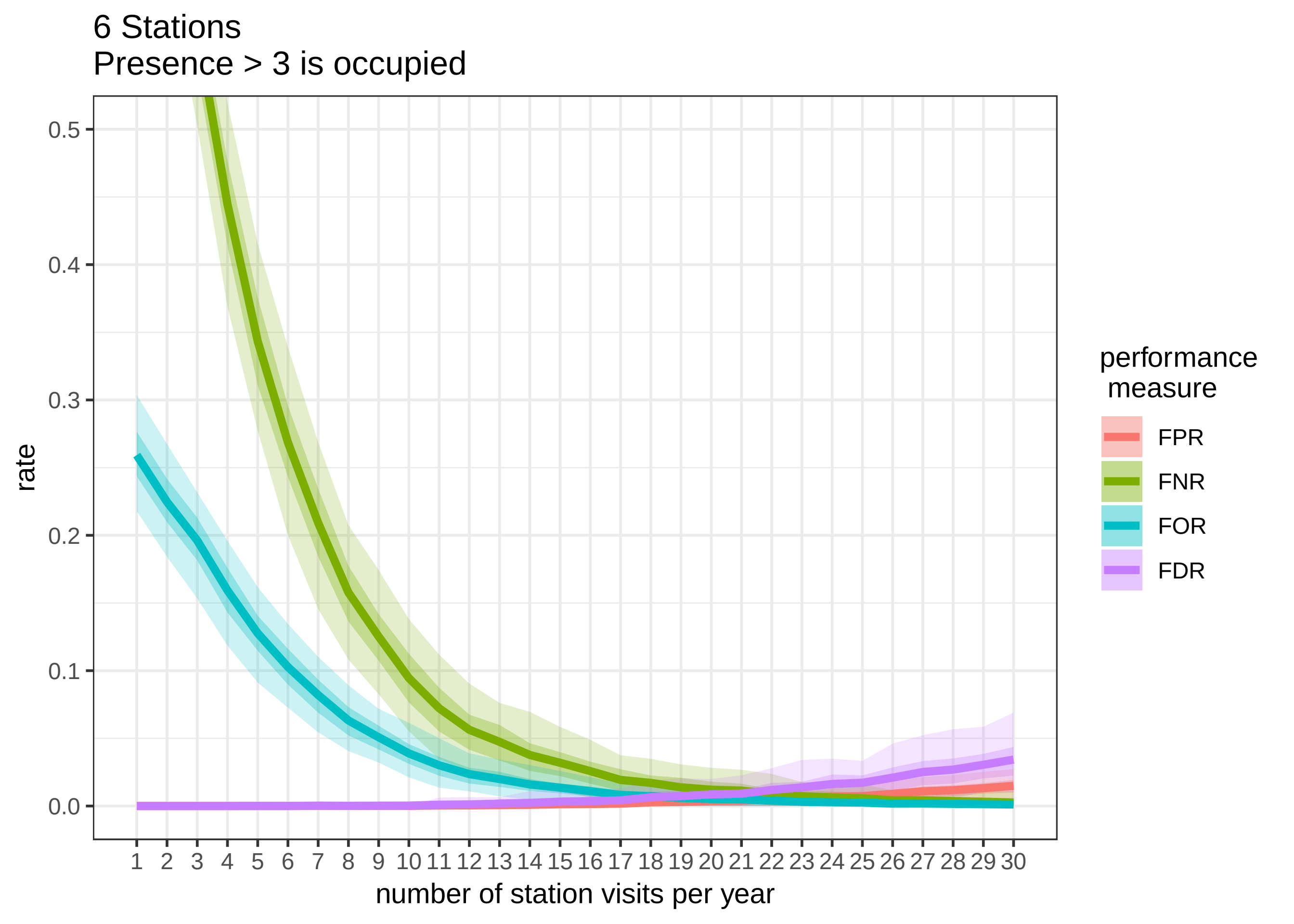

6 Stations
Presence not used
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



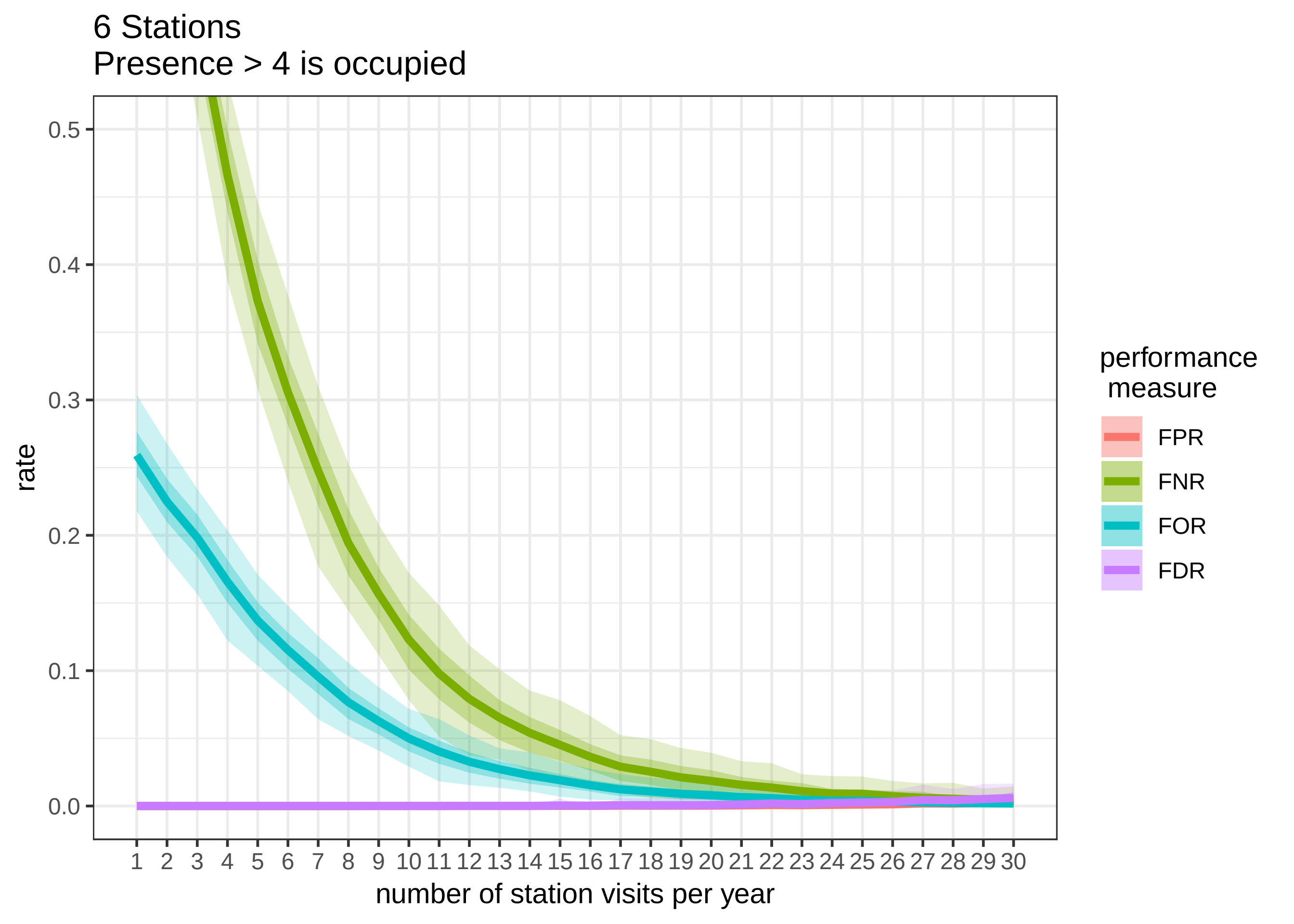
6 Stations
Presence > 0 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

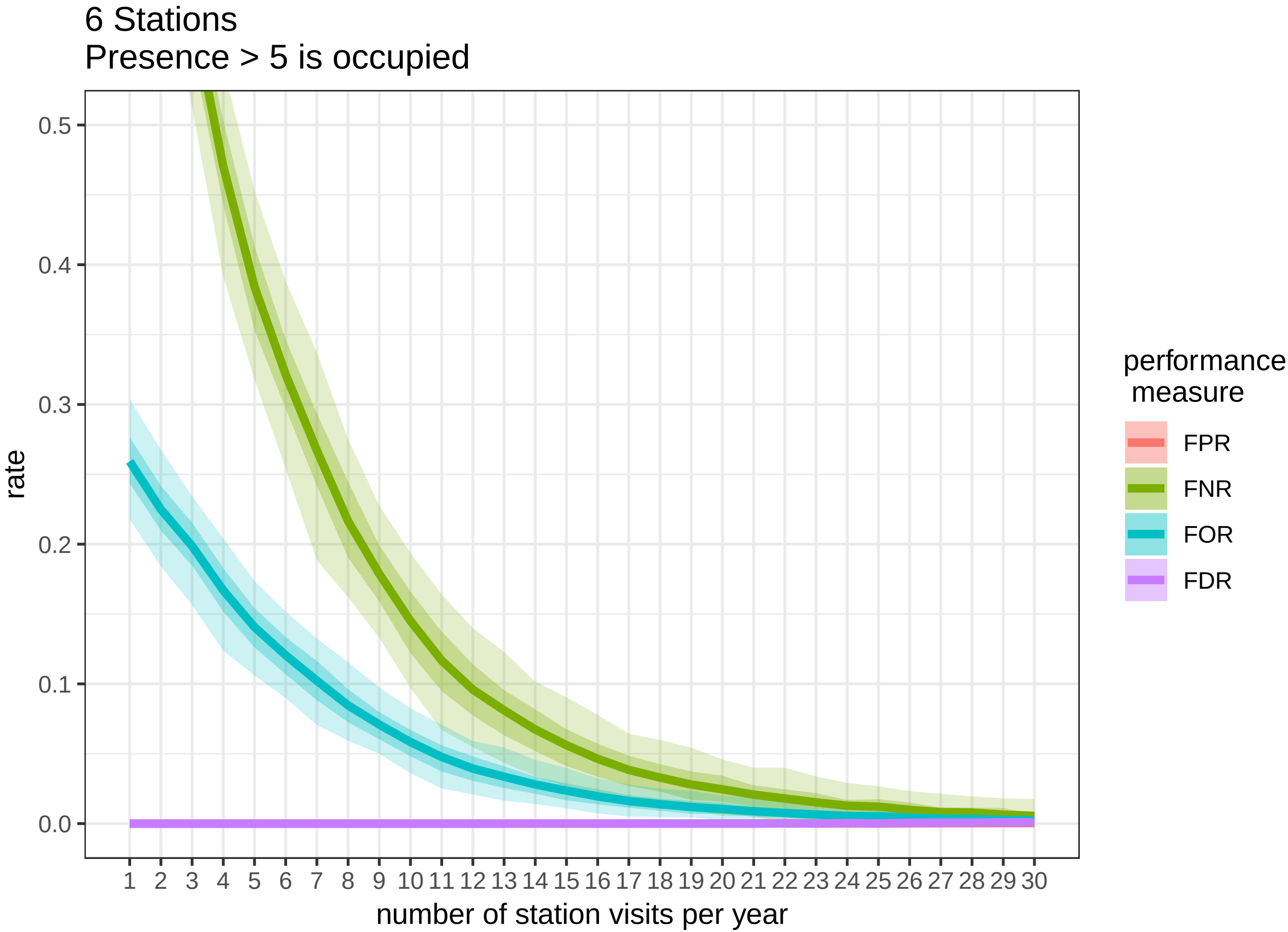

6 Stations
Presence > 1 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

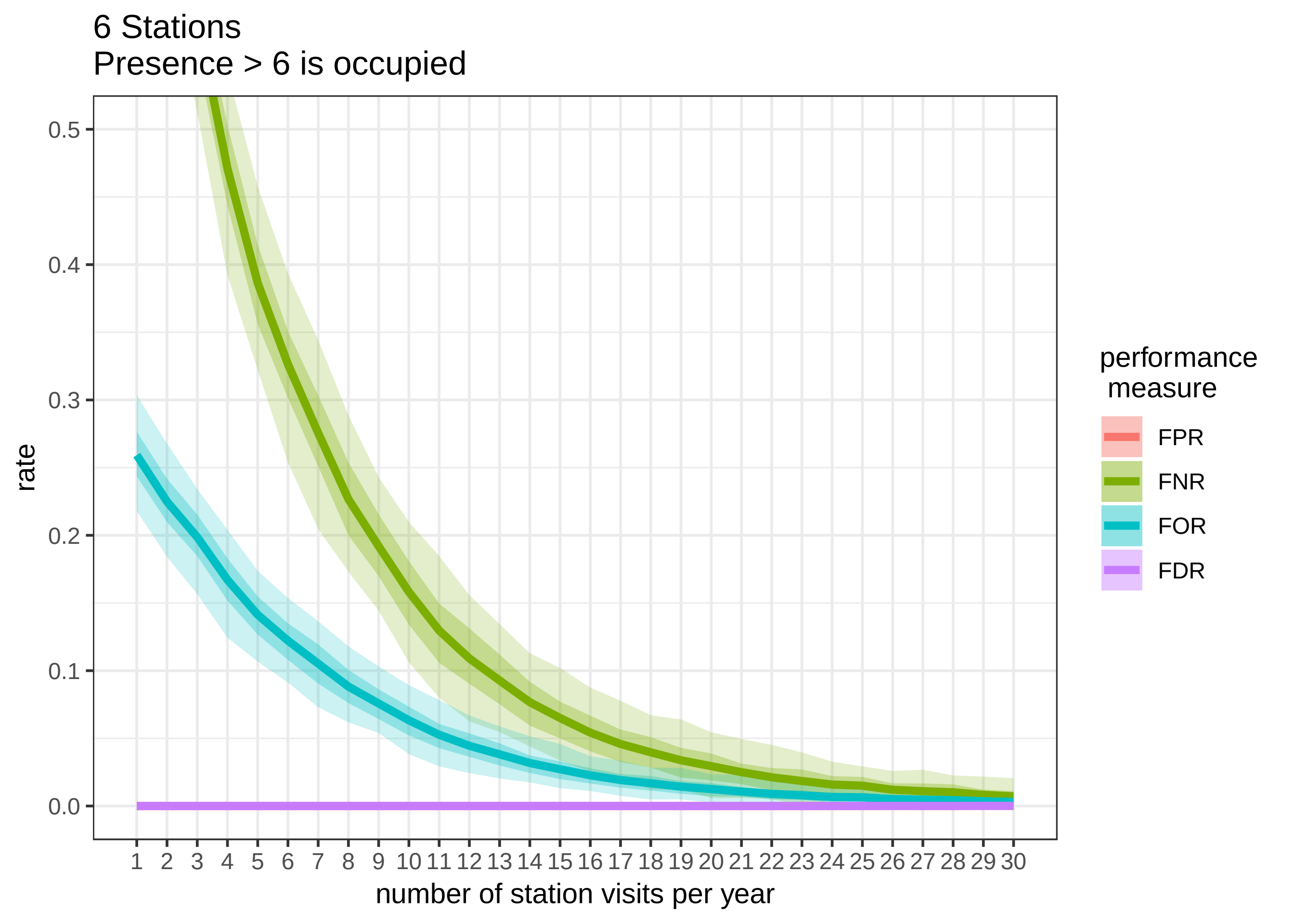

6 Stations
Presence > 2 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



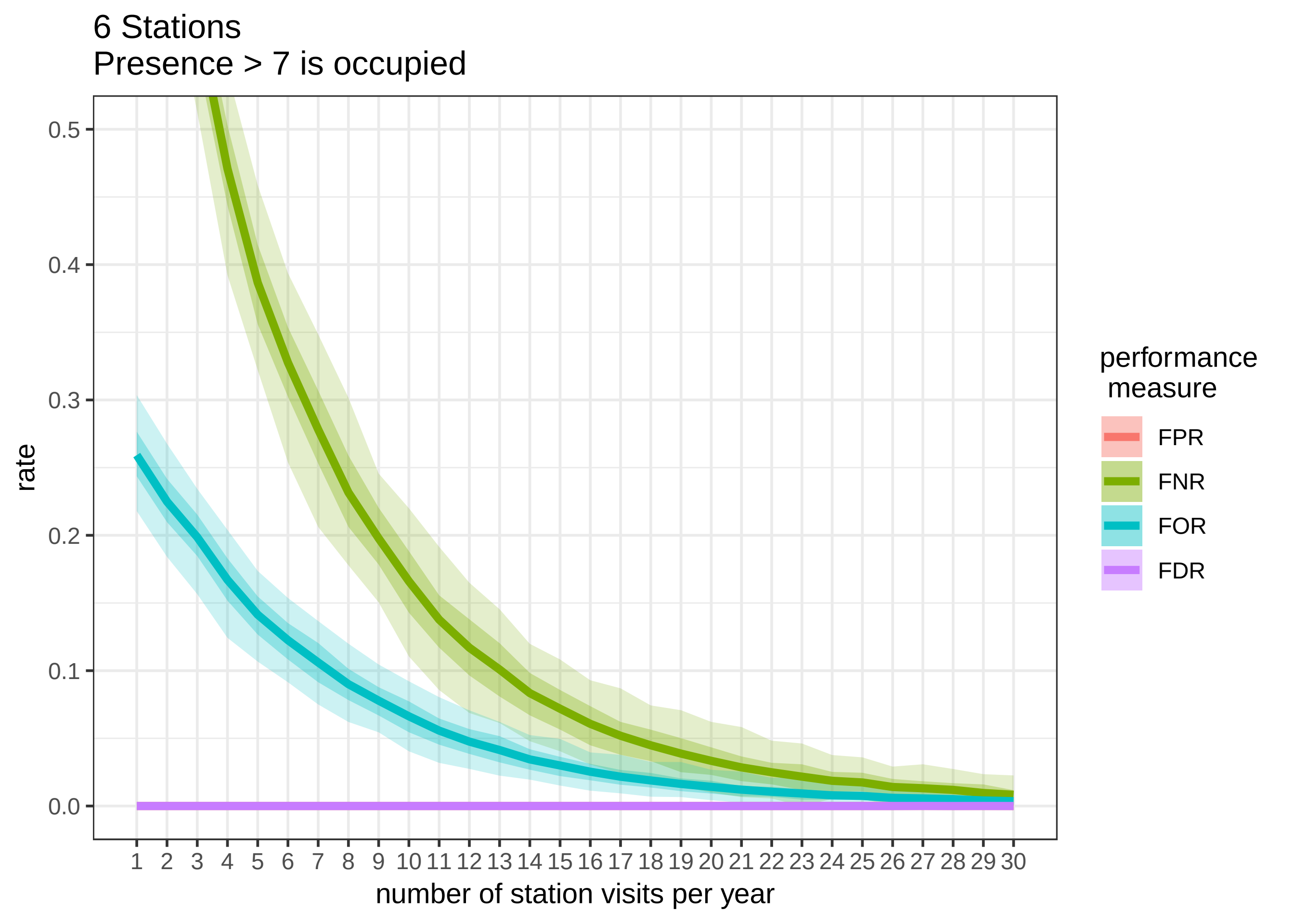
6 Stations
Presence > 3 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

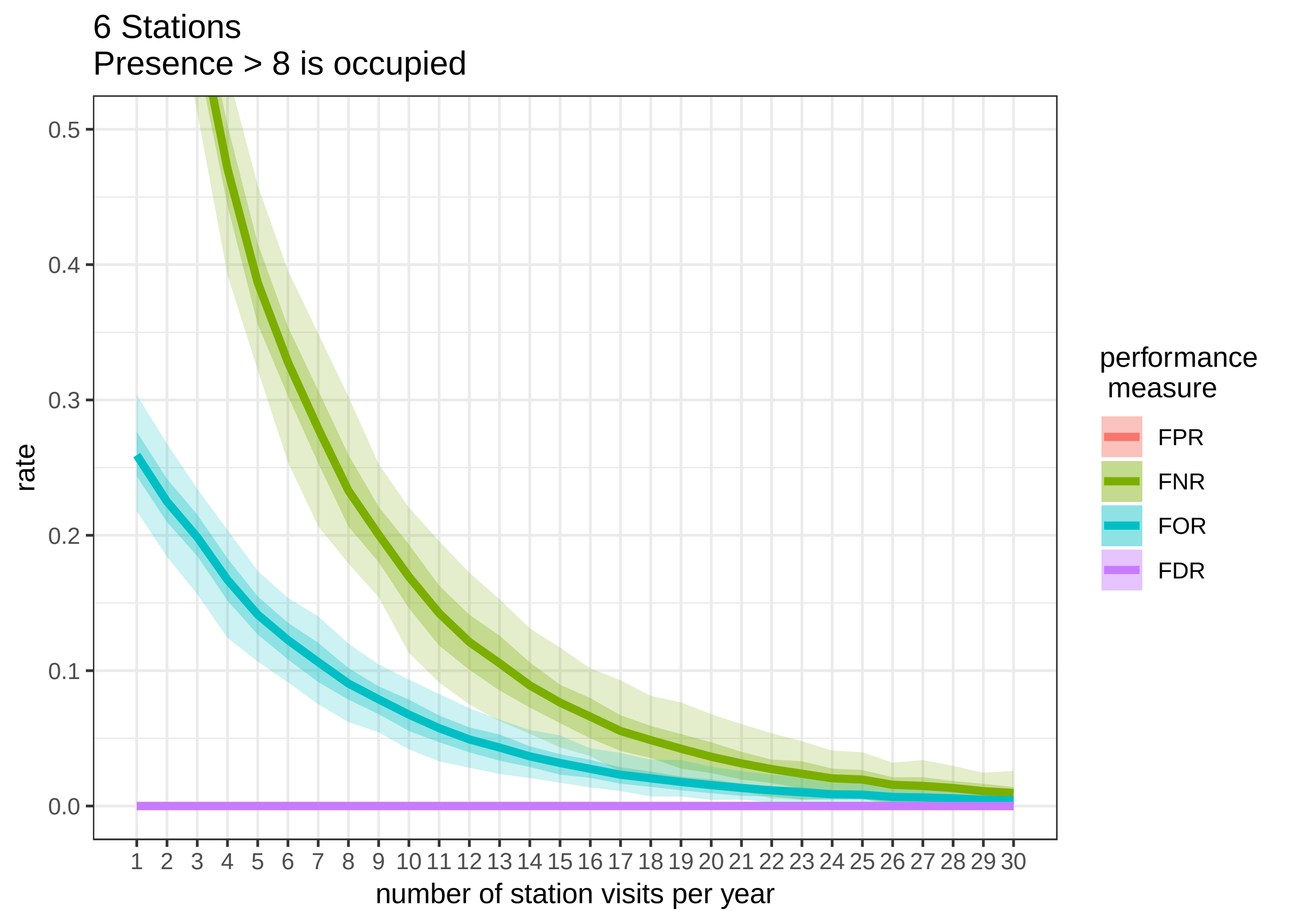

6 Stations
Presence > 4 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR


6 Stations
Presence > 5 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

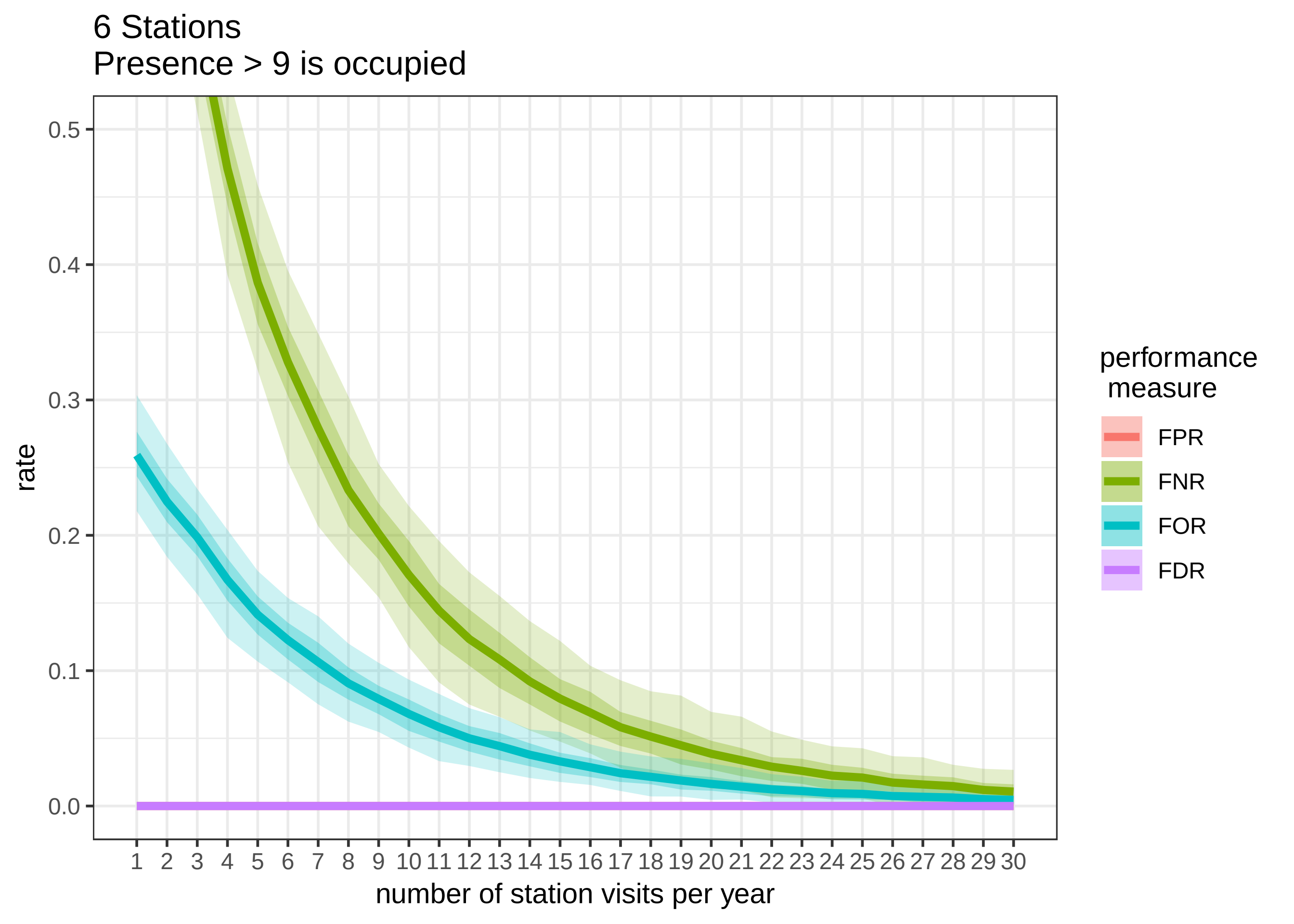


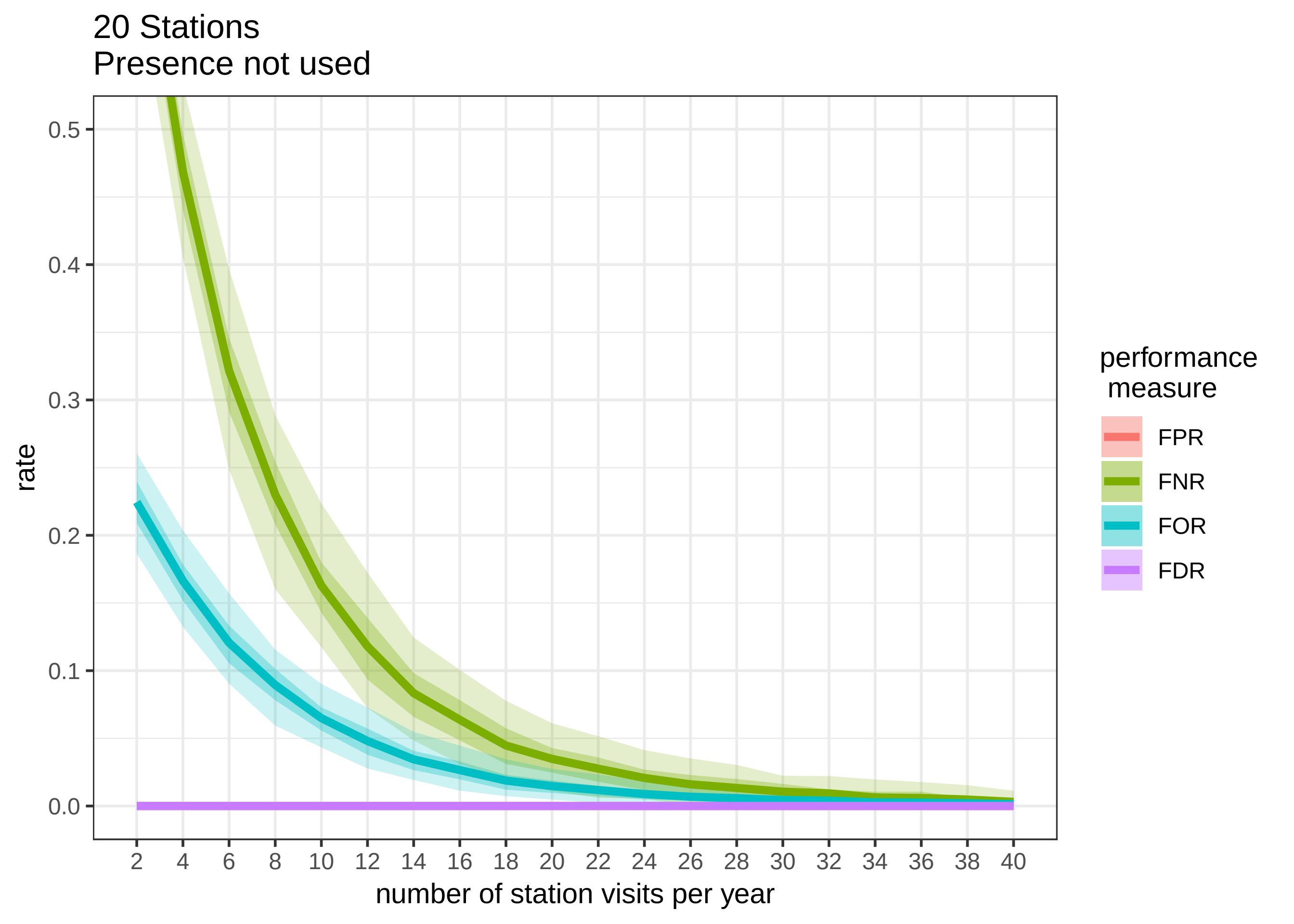
6 Stations
Presence > 6 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR


6 Stations
Presence > 7 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

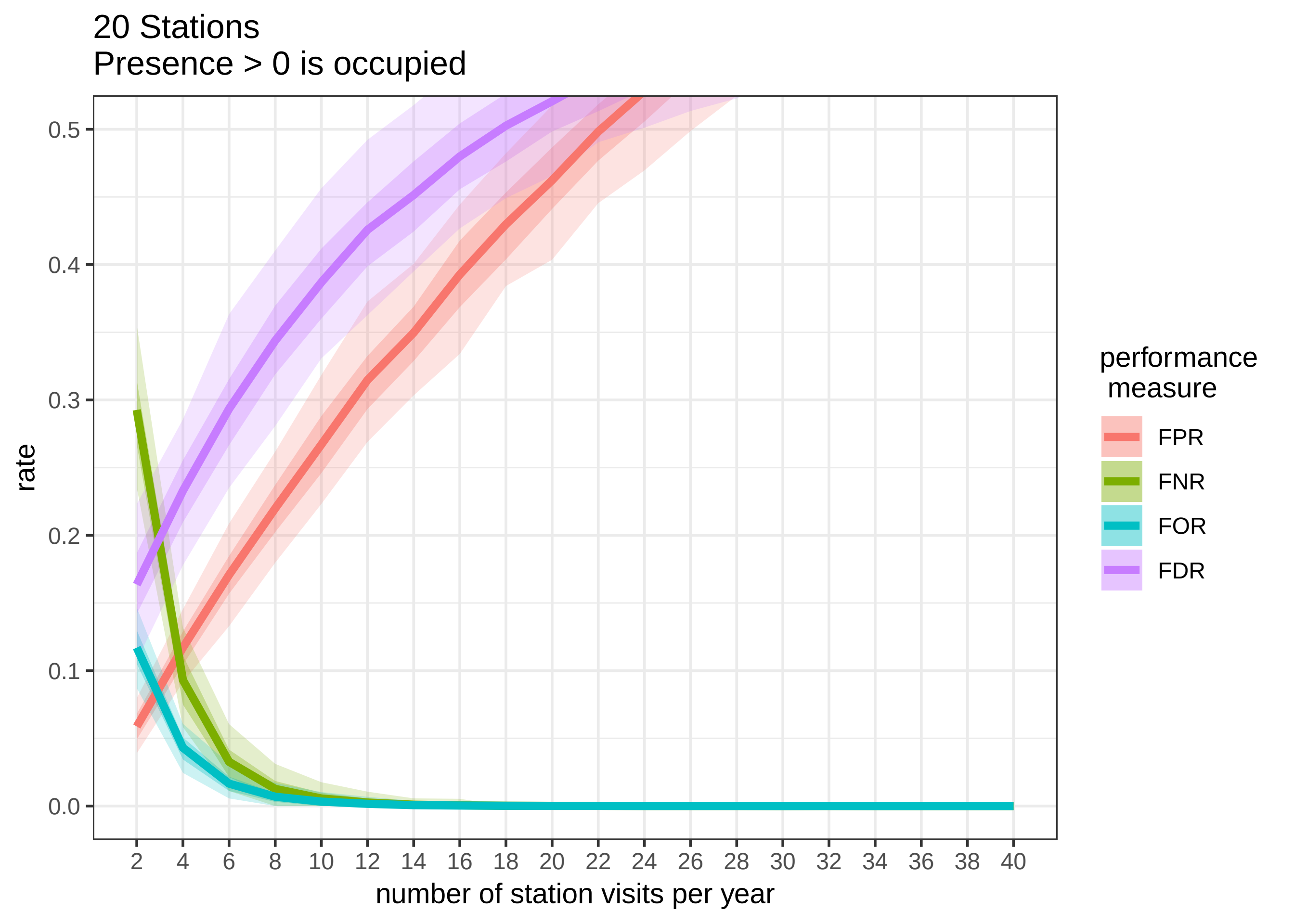


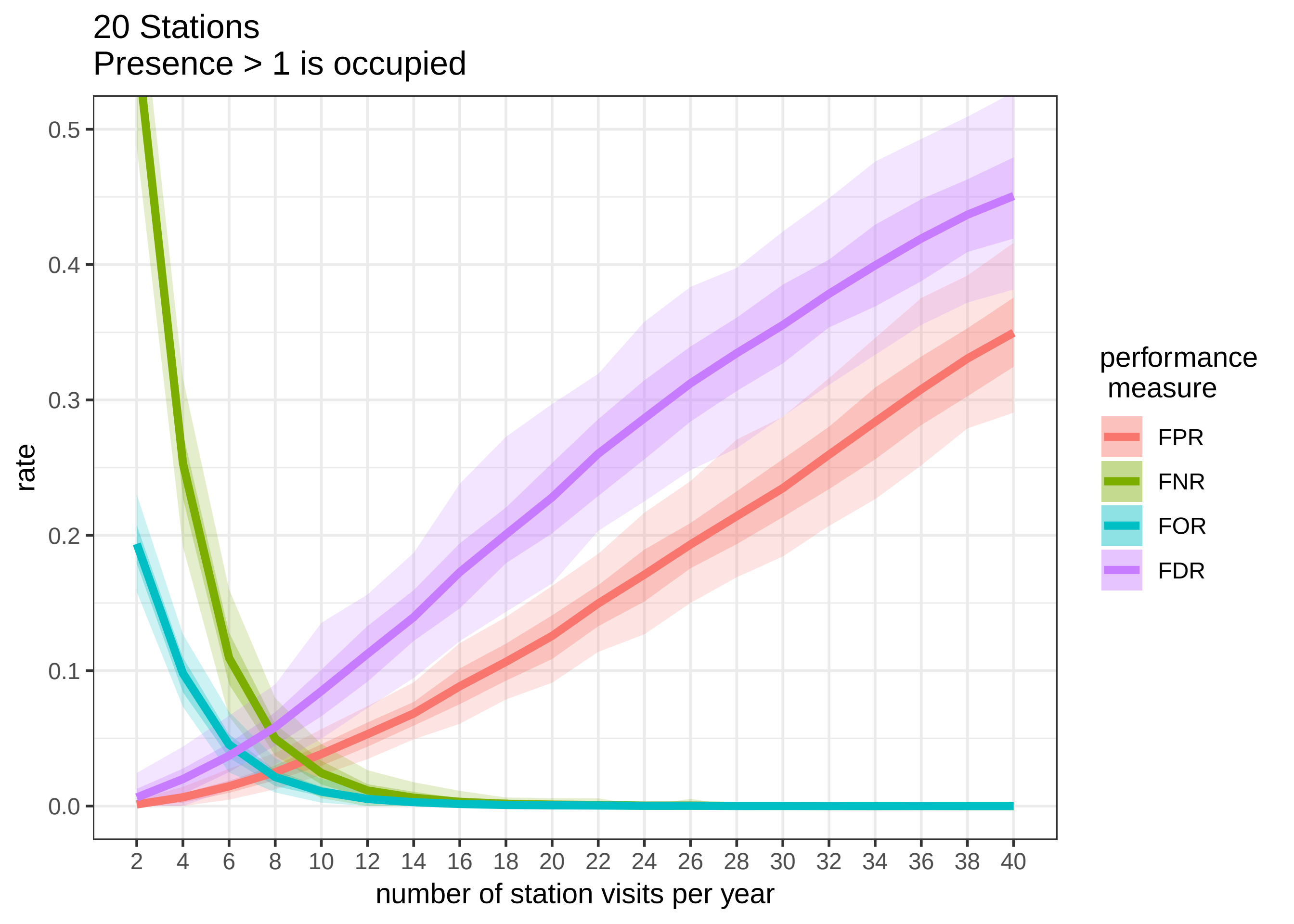
6 Stations
Presence > 8 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

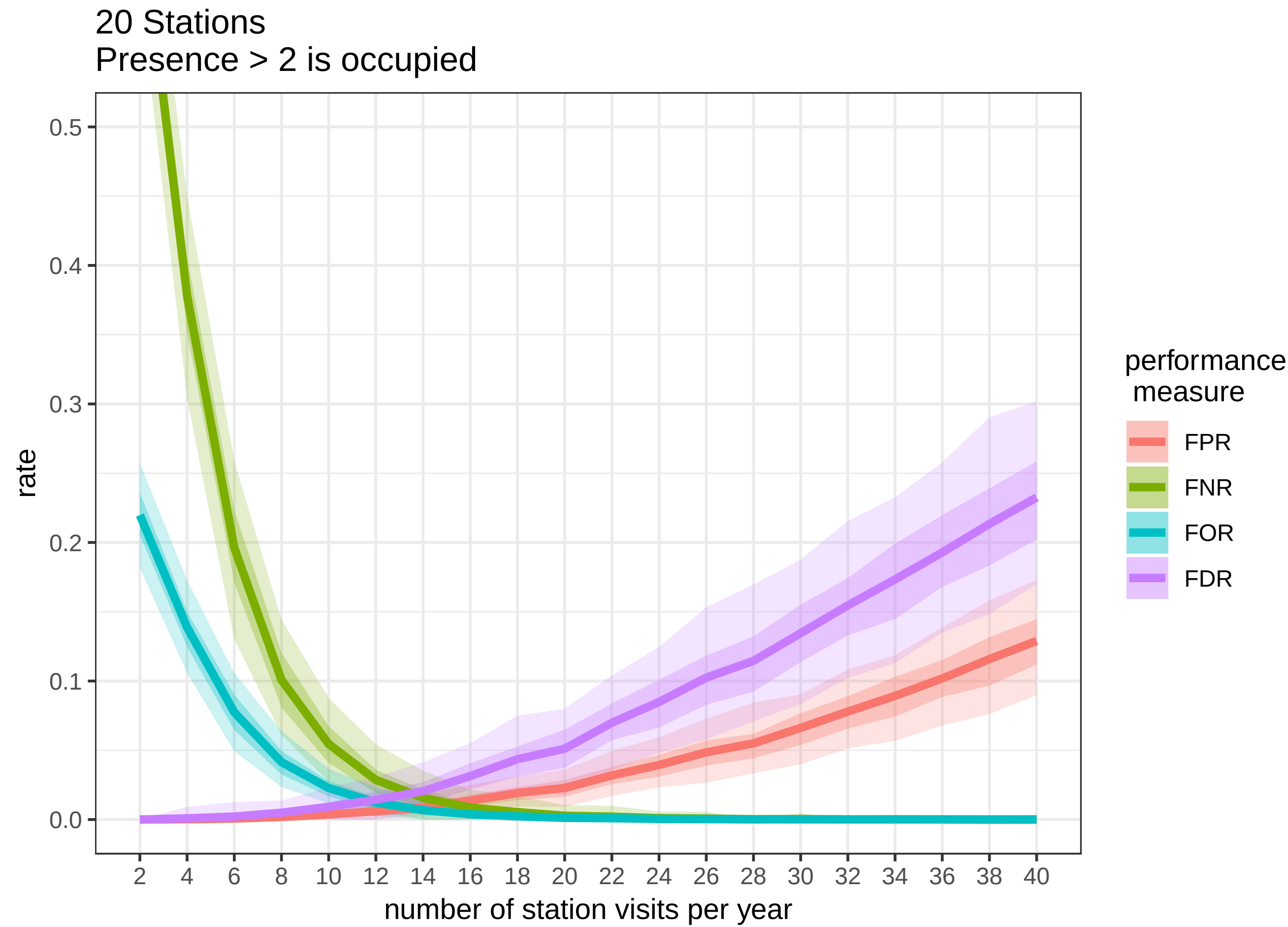

6 Stations
Presence > 9 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

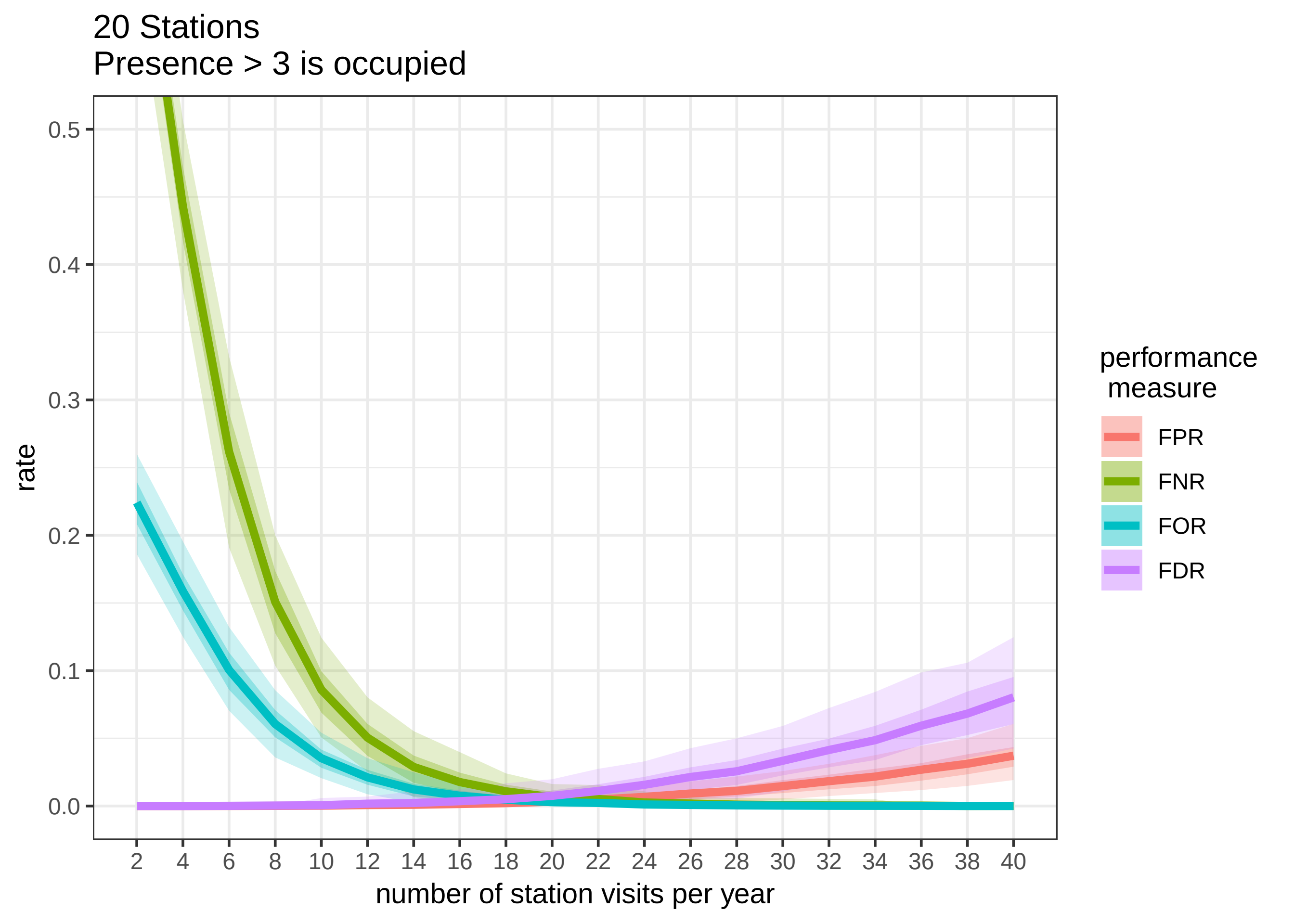


20 Stations
Presence not used
rate
0.0
0.1
0.2
0.3
0.4
0.5
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

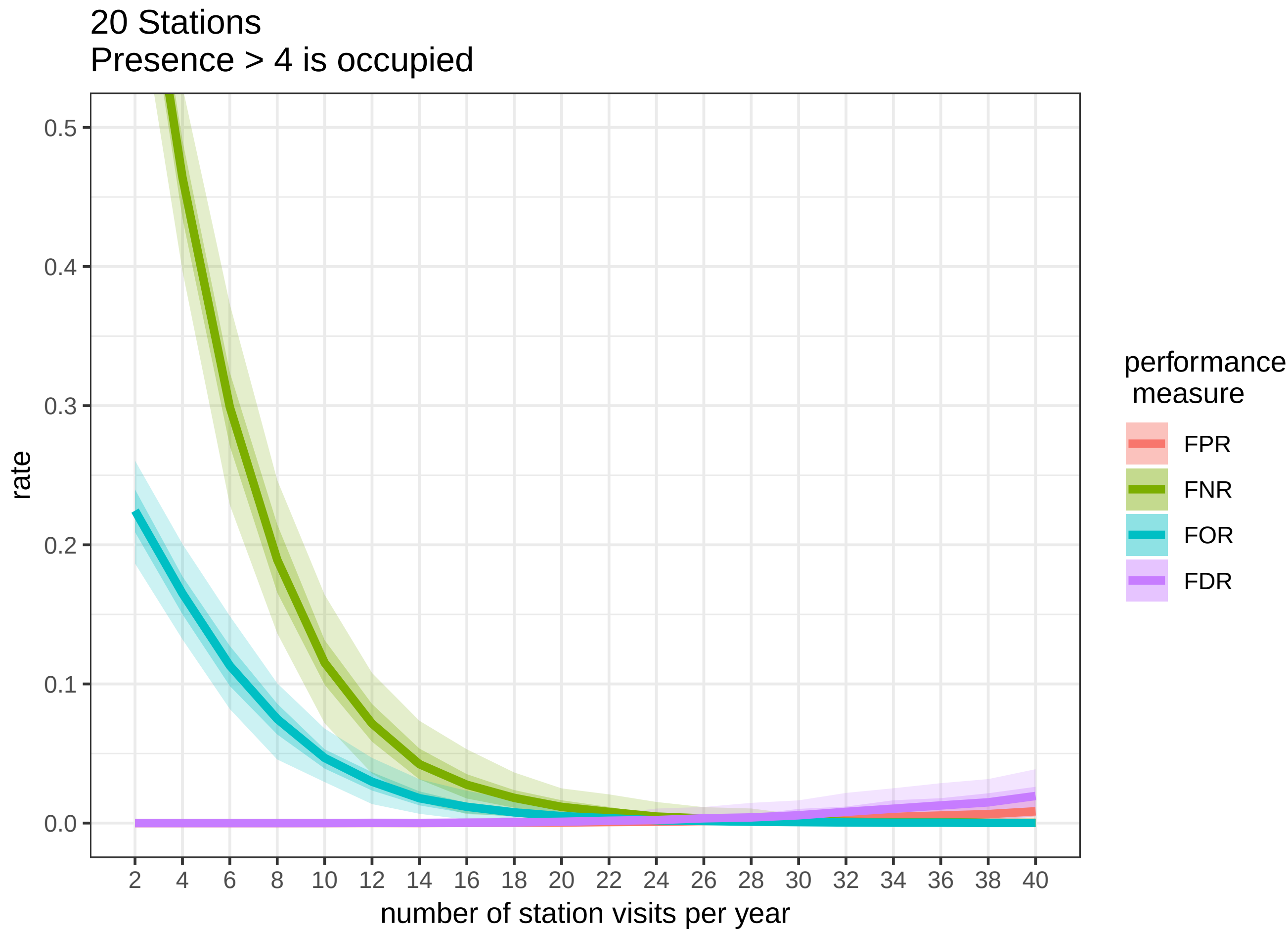

20 Stations
Presence > 0 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FPR
FNR
FOR
FDR


20 Stations
Presence > 1 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

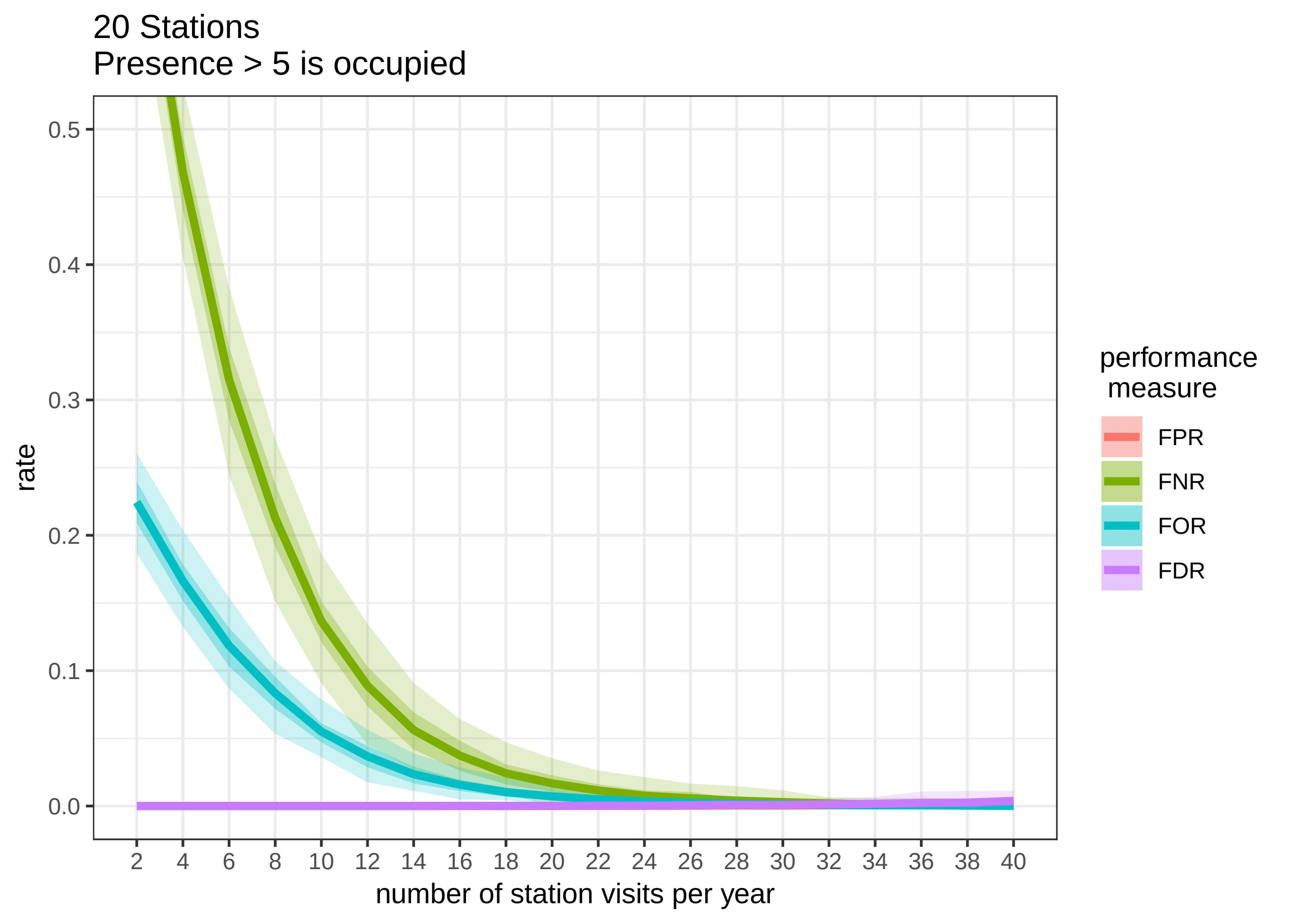

20 Stations
Presence > 2 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance
measure
FPR
FNR
FOR
FDR

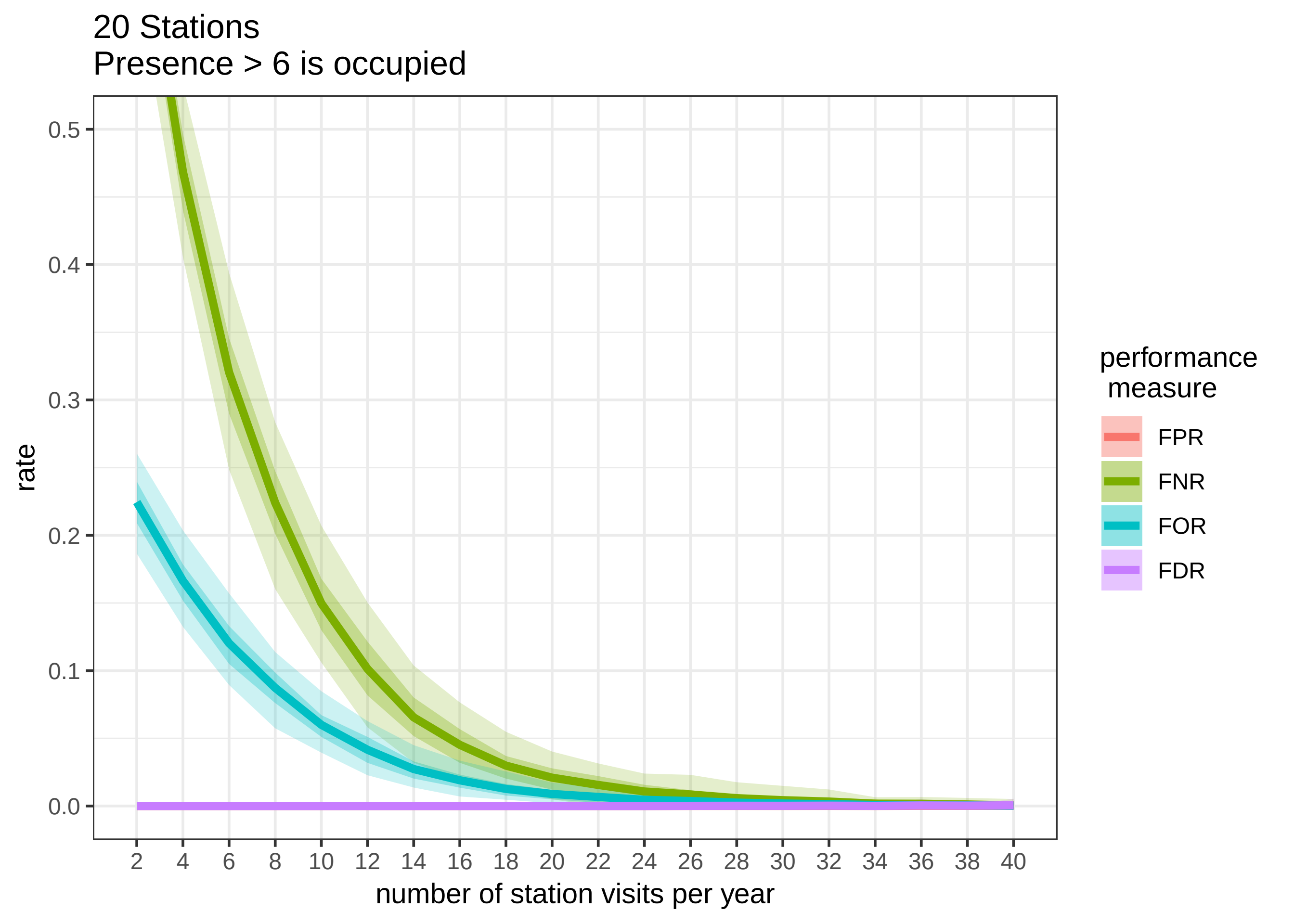


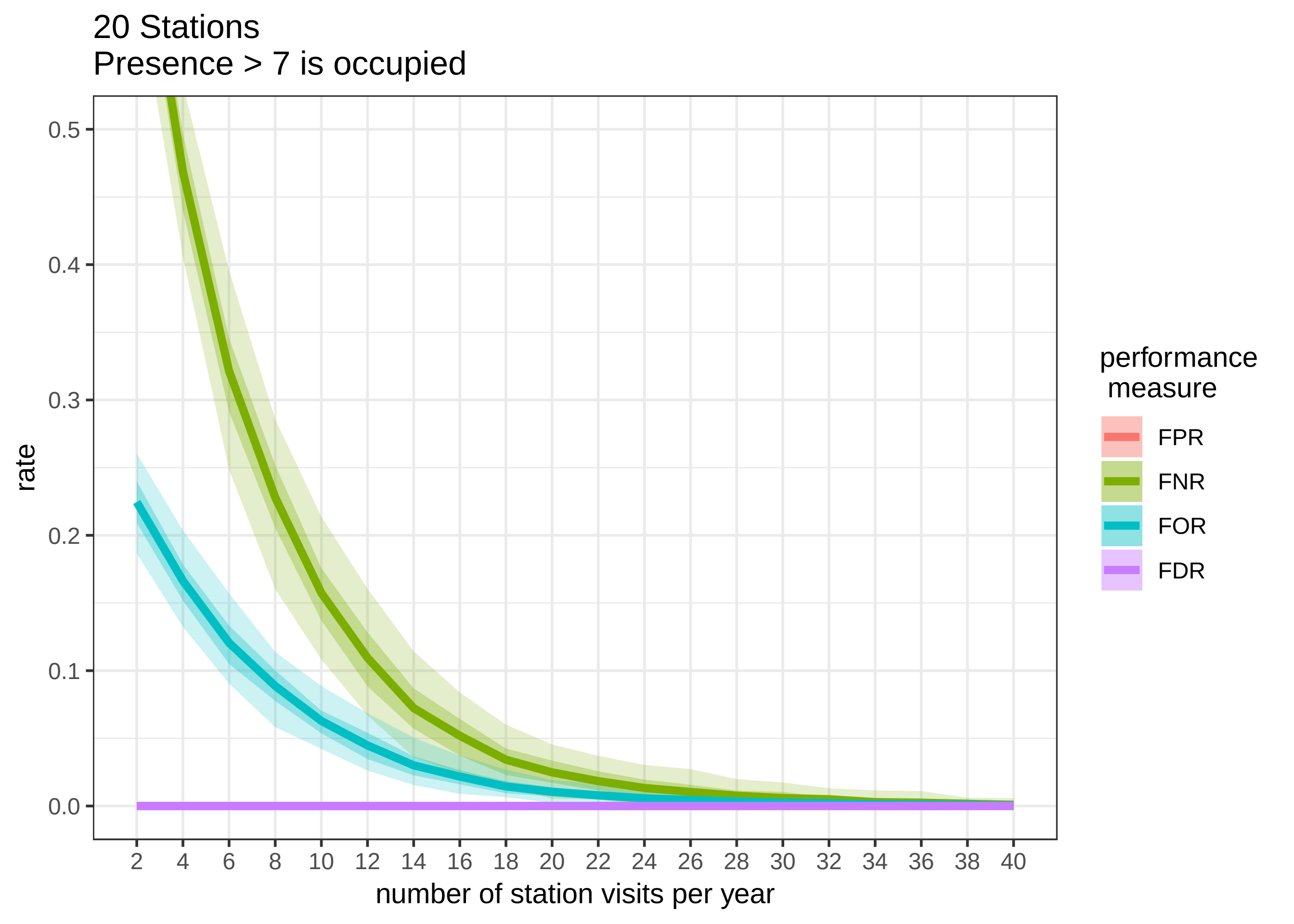
20 Stations
Presence > 3 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



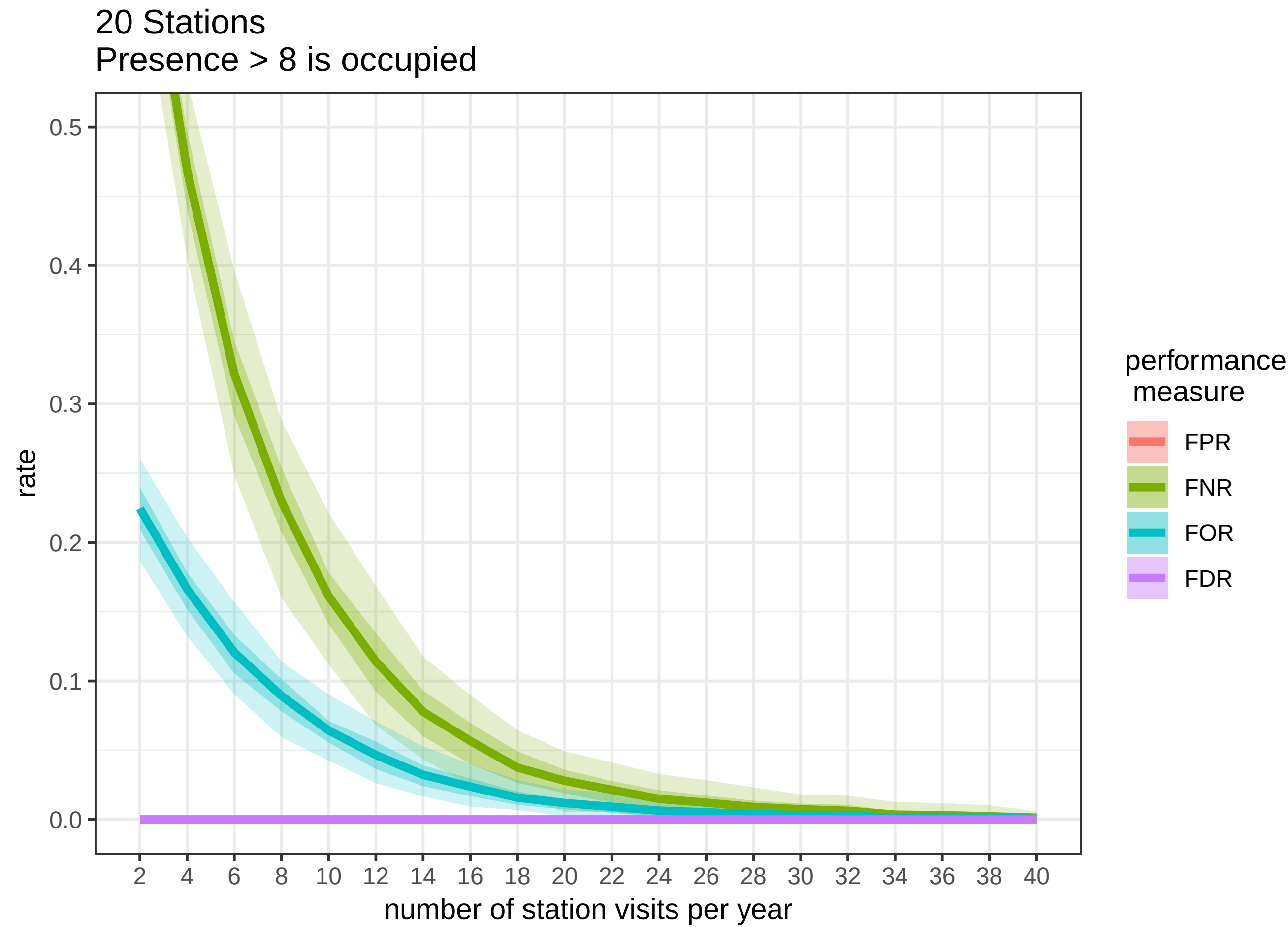
20 Stations
Presence > 4 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FPR
FNR
FOR
FDR


20 Stations
Presence > 5 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

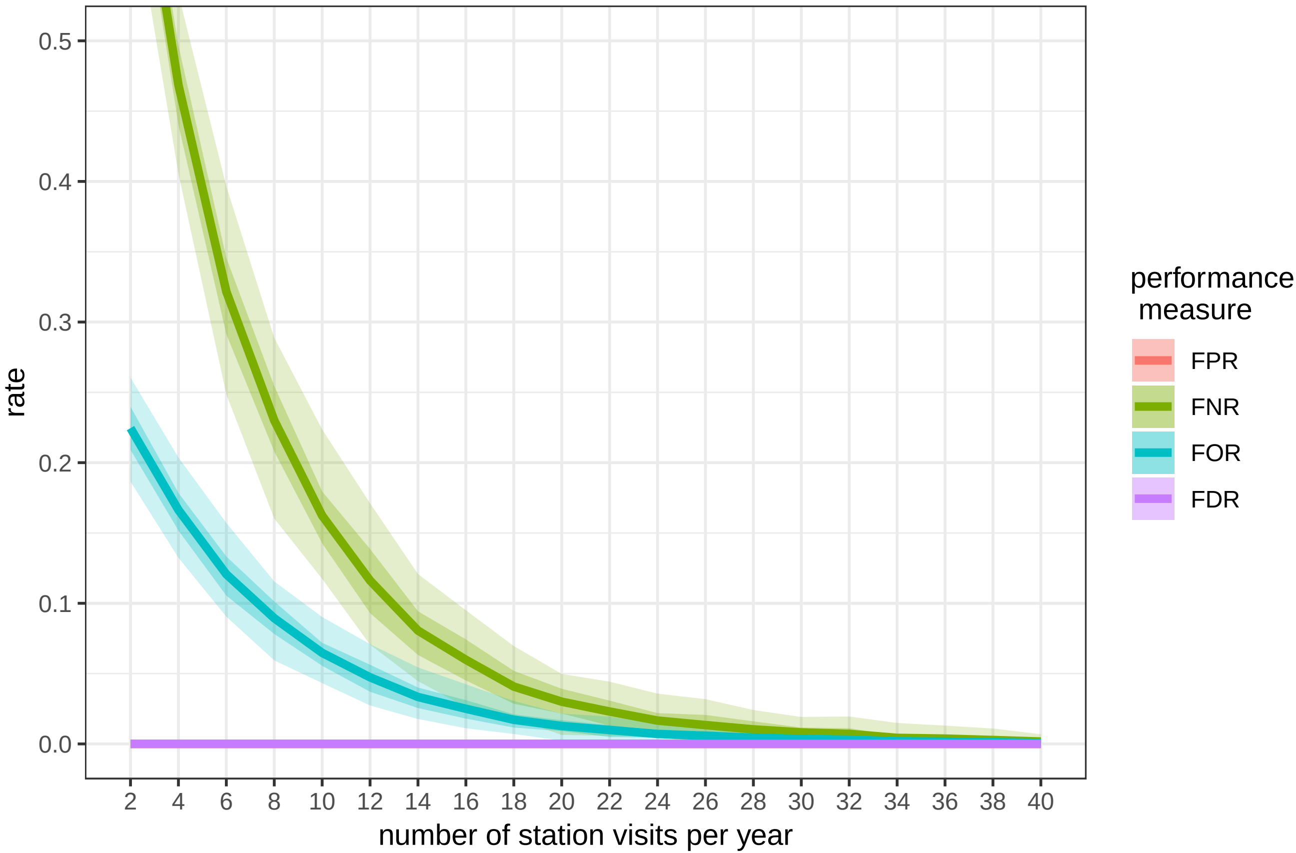

20 Stations
Presence > 6 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance
measure
FPR
FNR
FOR
FDR

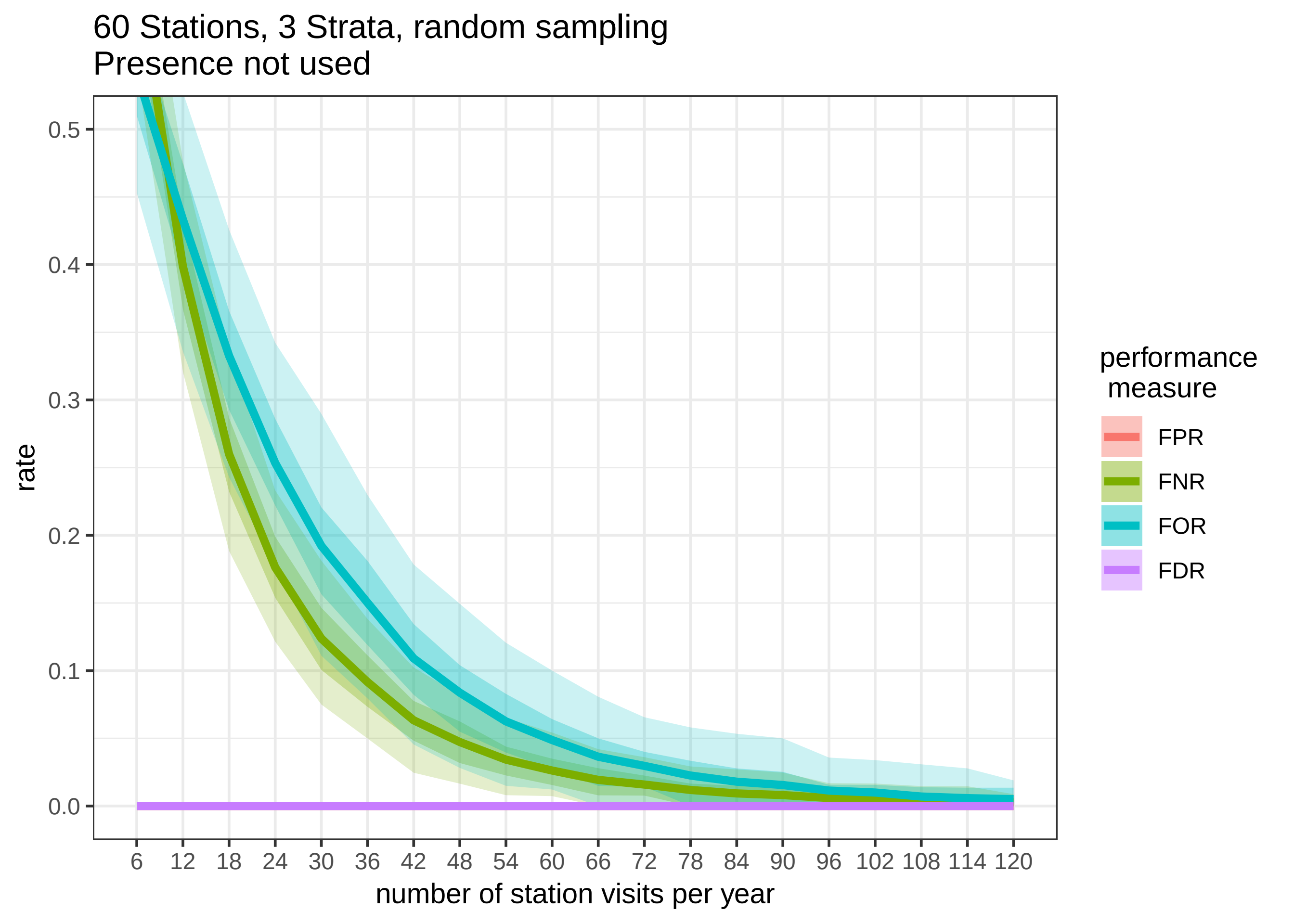


20 Stations
Presence > 7 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

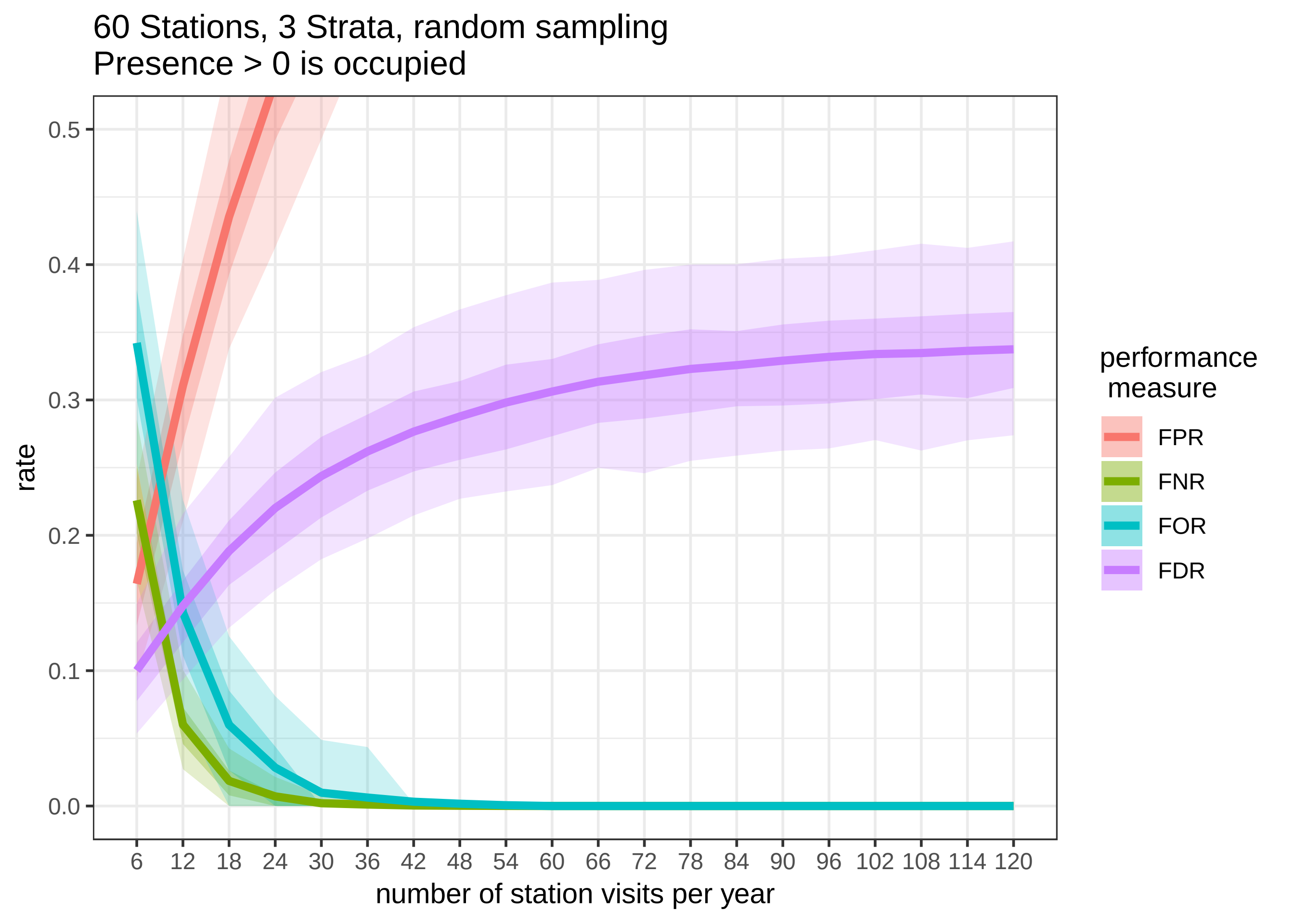

20 Stations
Presence > 8 is occupied
0.5
0.4
0.3
0.2
0.1
0.0
rate
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

20 Stations
Presence > 9 is occupied

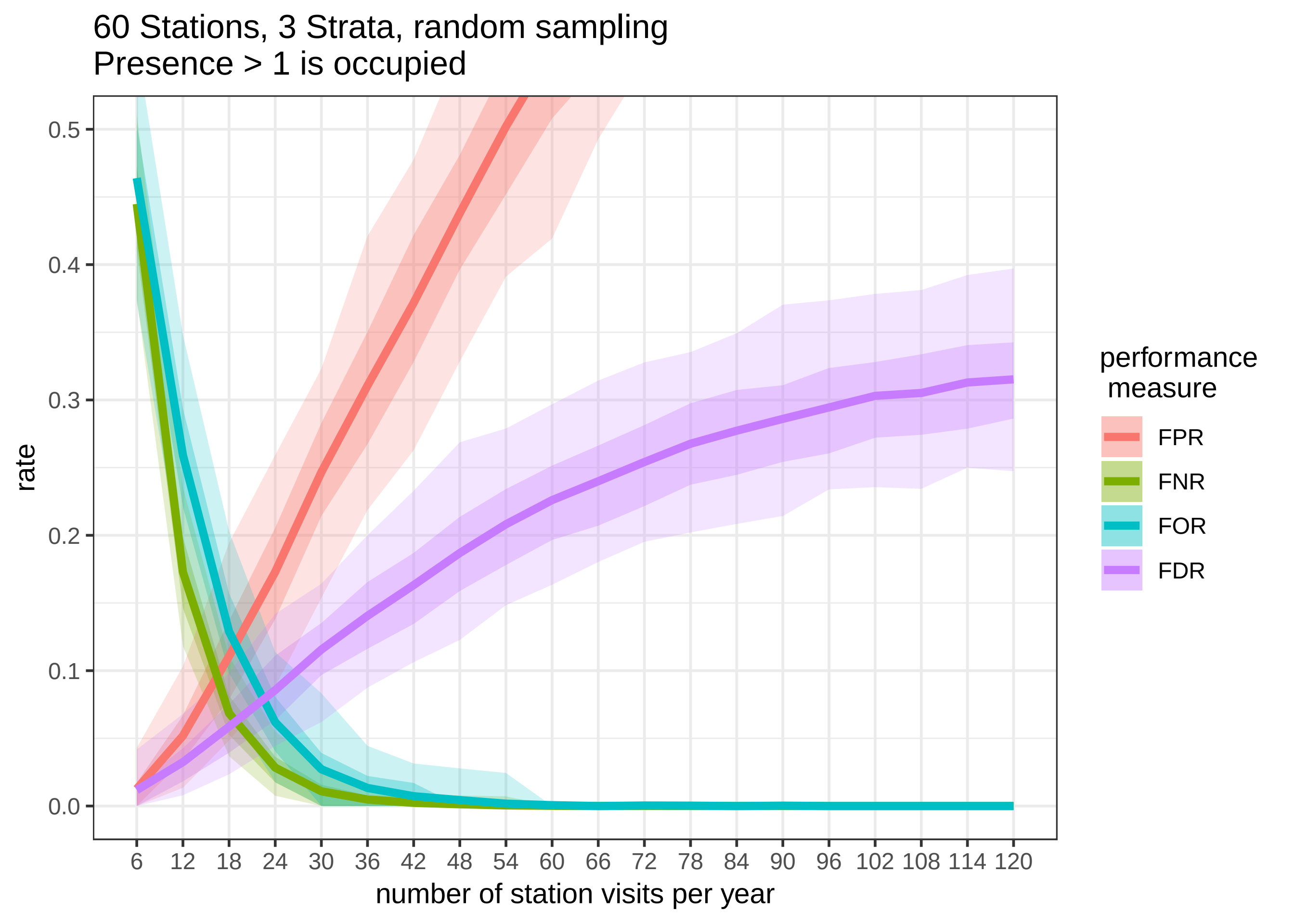




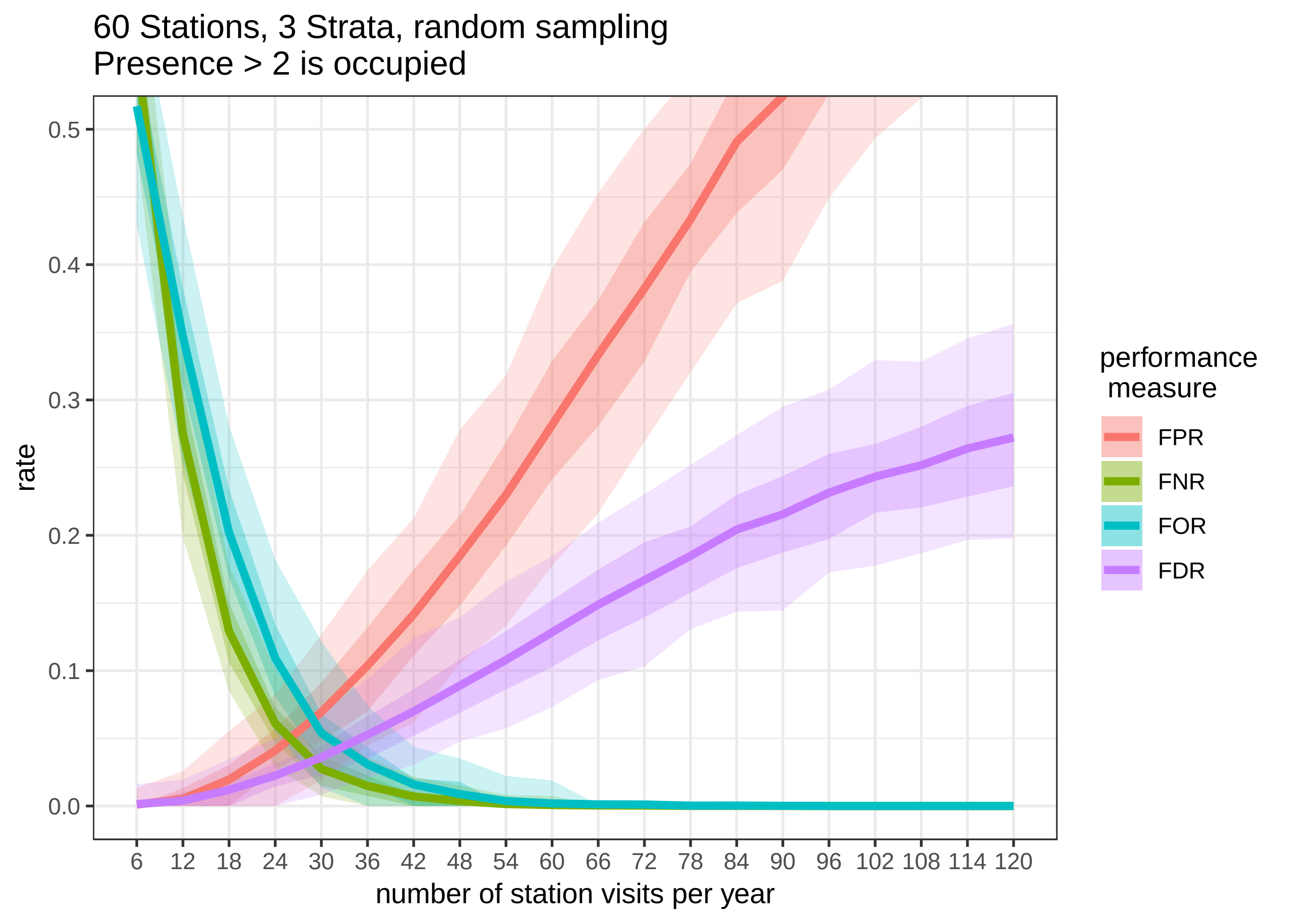
60 Stations, 3 Strata, random sampling
Presence not used
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



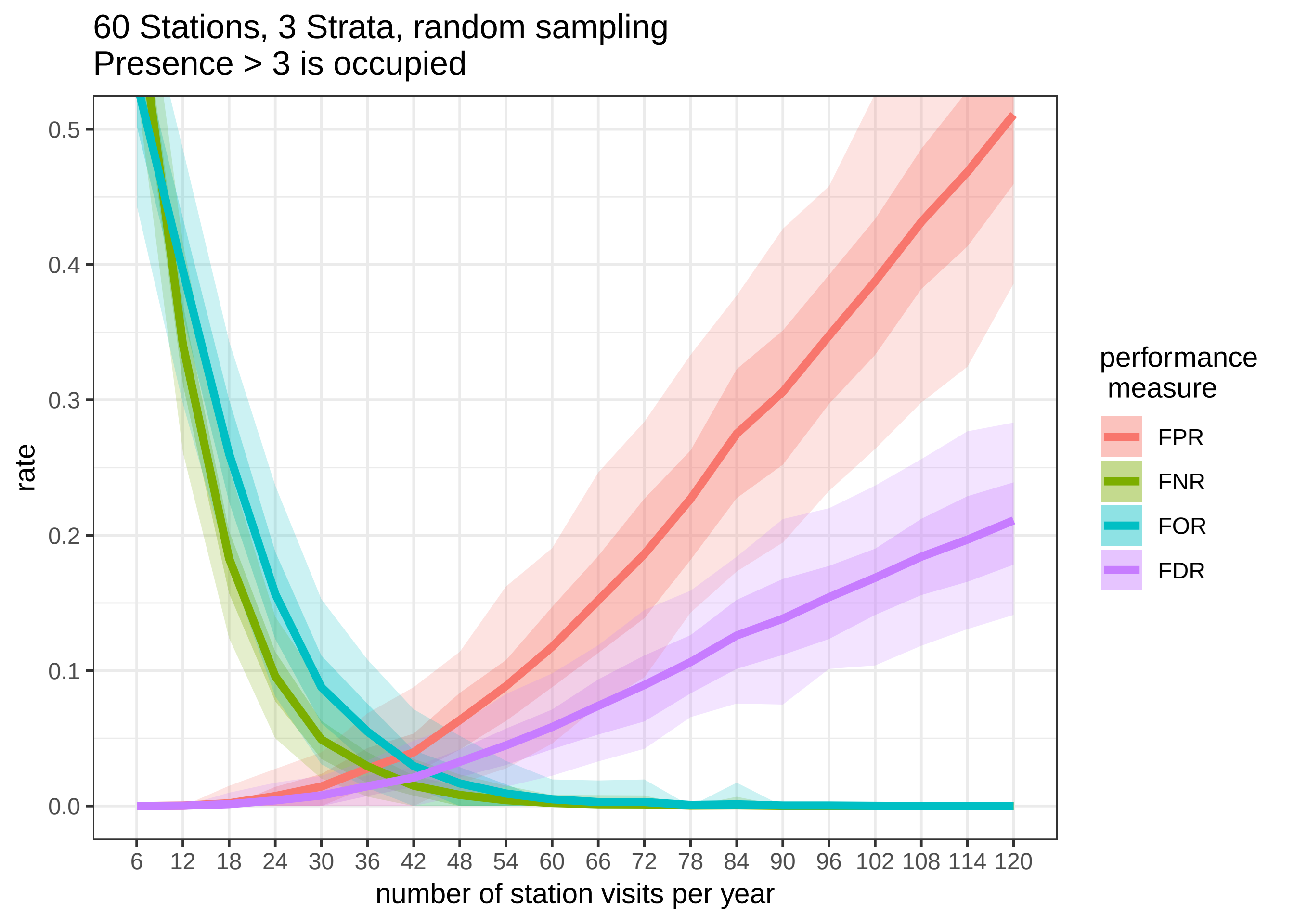
60 Stations, 3 Strata, random sampling
Presence > 0 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

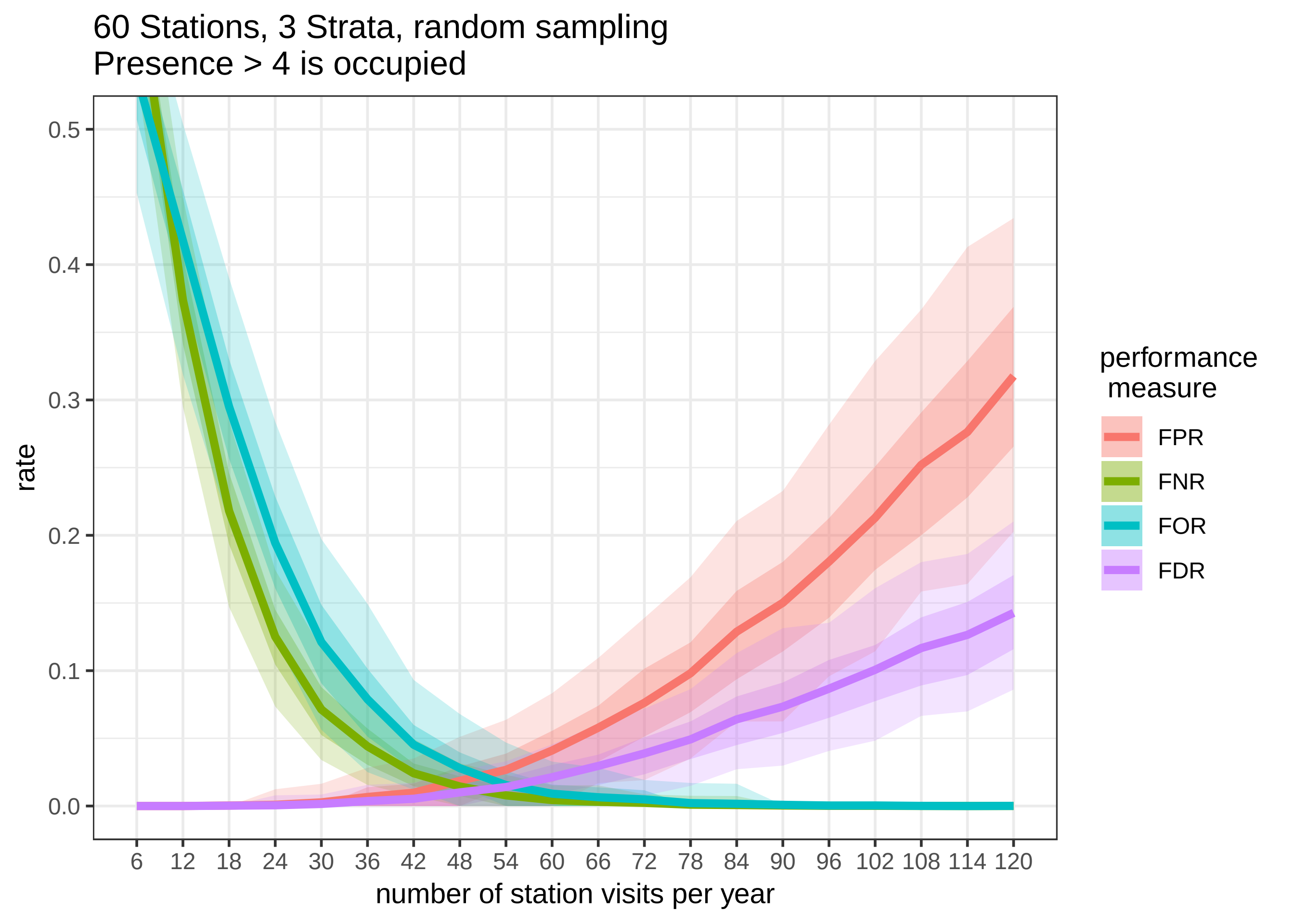


60 Stations, 3 Strata, random sampling
Presence > 1 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

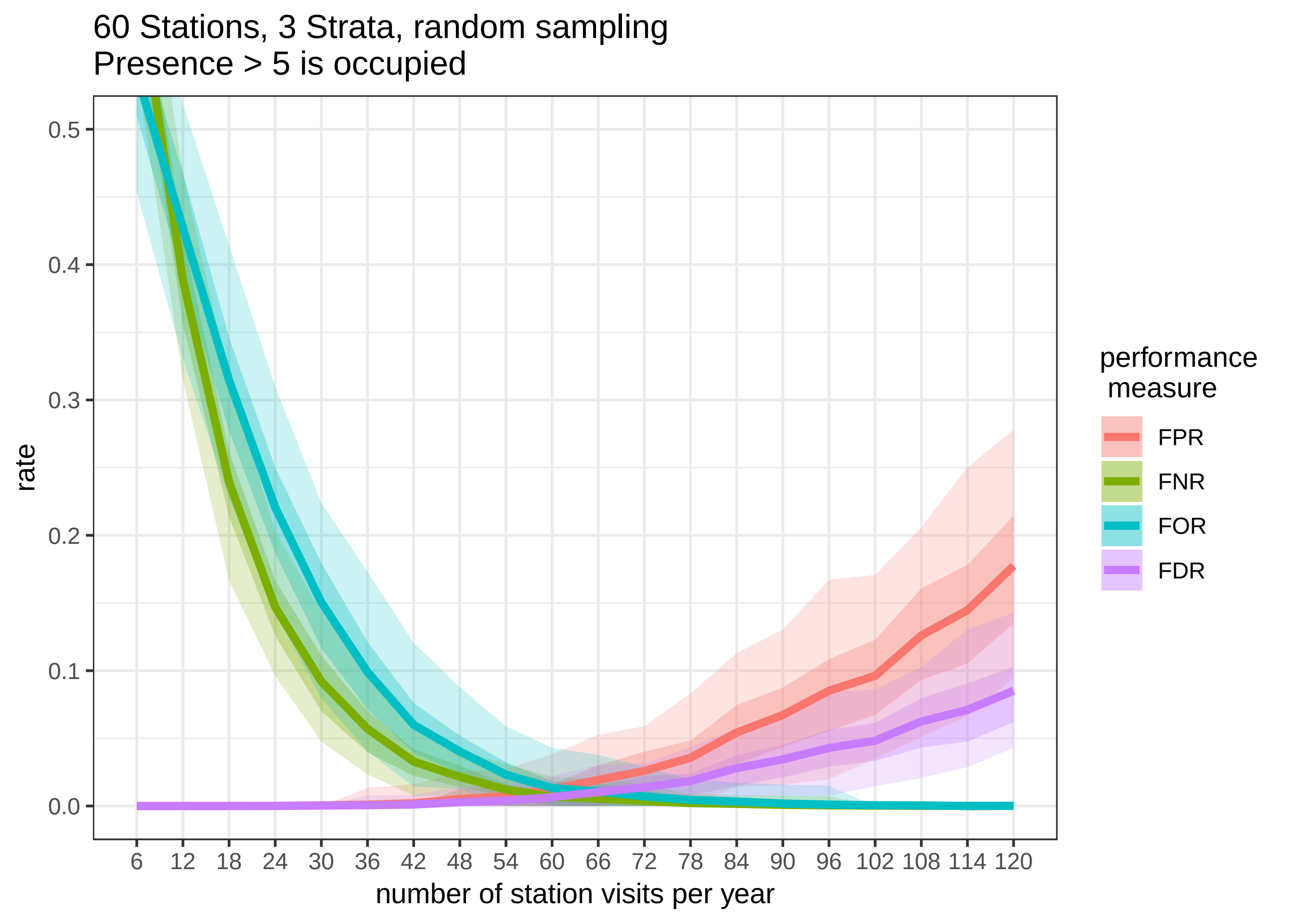


60 Stations, 3 Strata, random sampling
Presence > 2 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

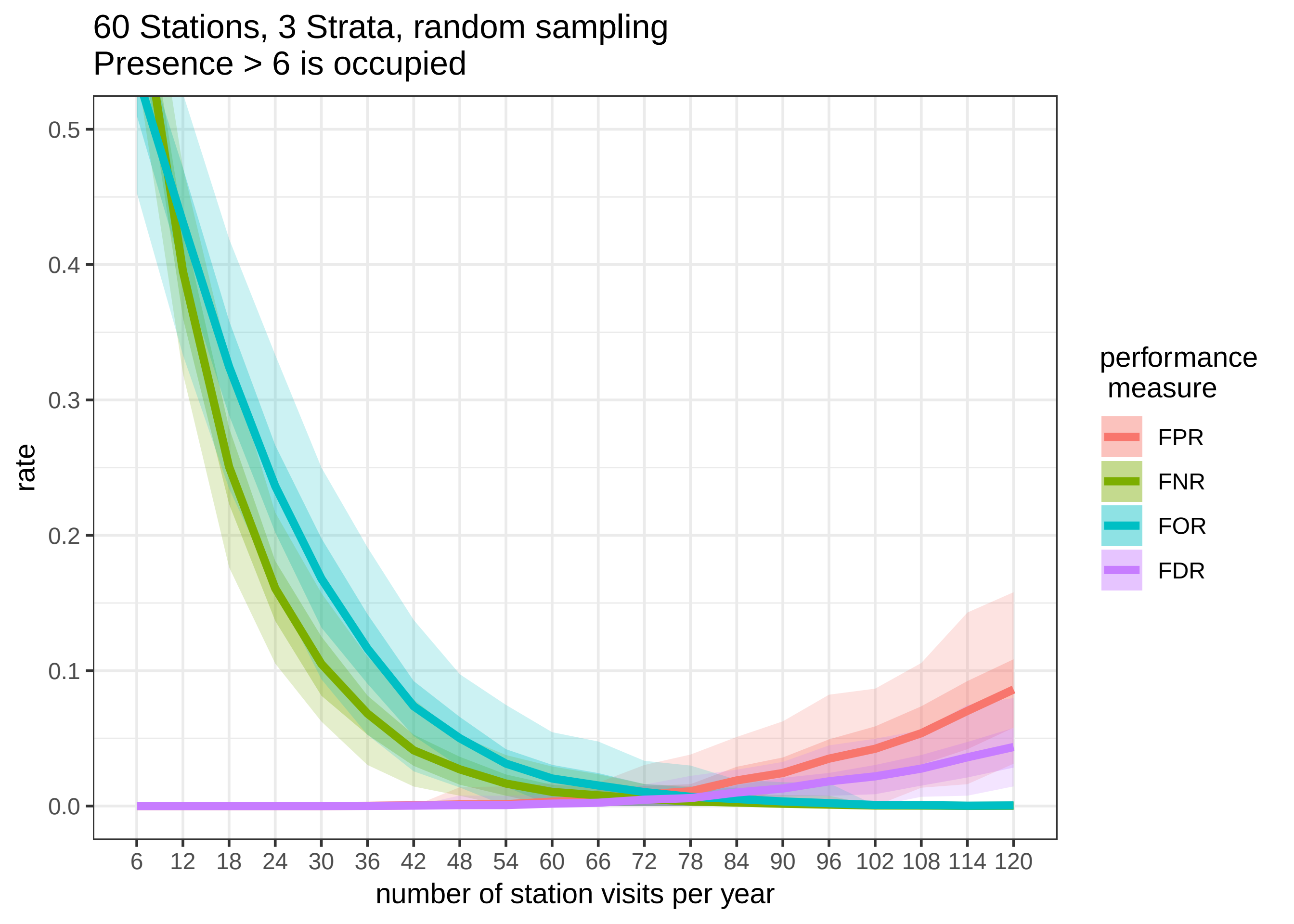

60 Stations, 3 Strata, random sampling
Presence > 3 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

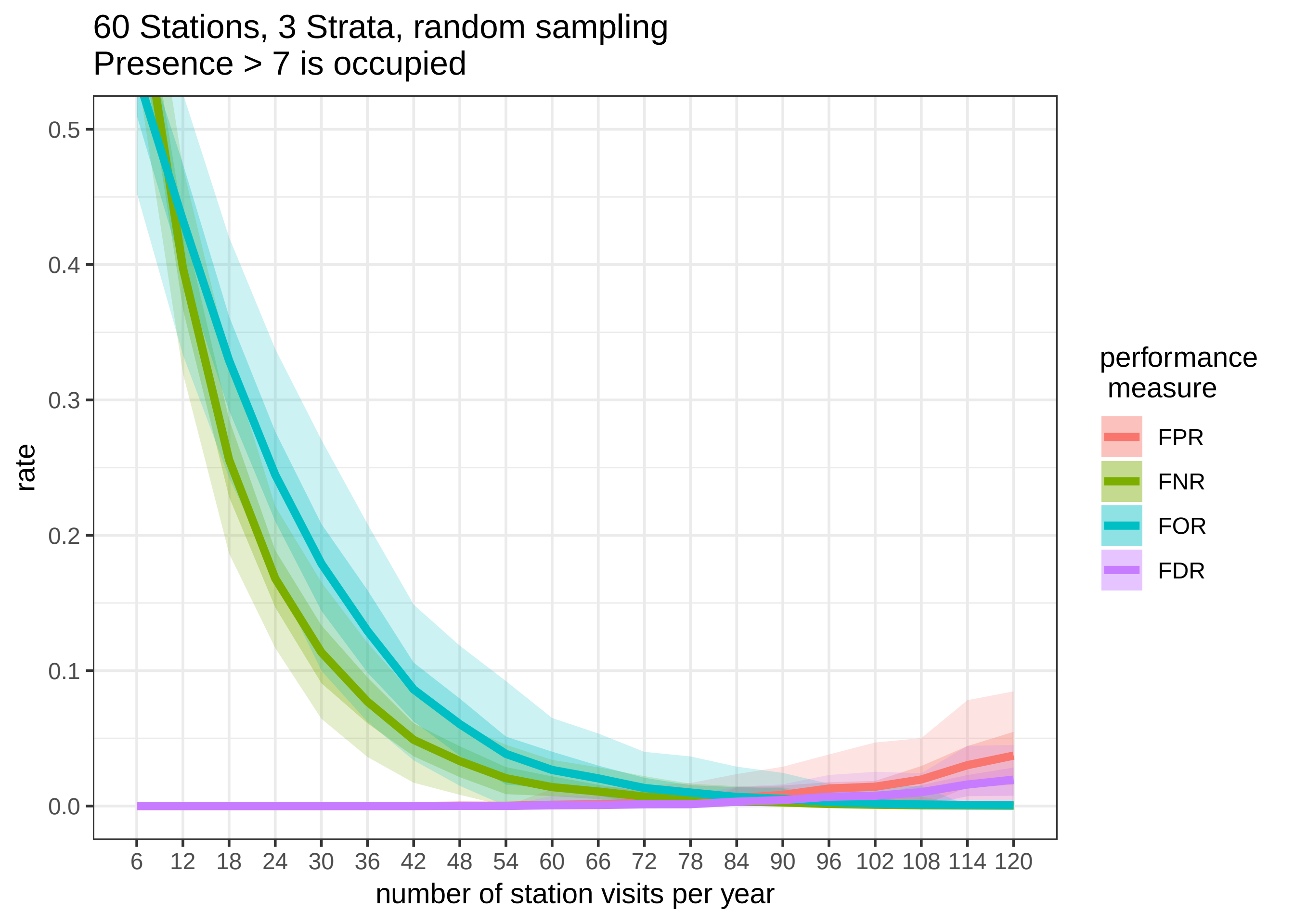


60 Stations, 3 Strata, random sampling
Presence > 4 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

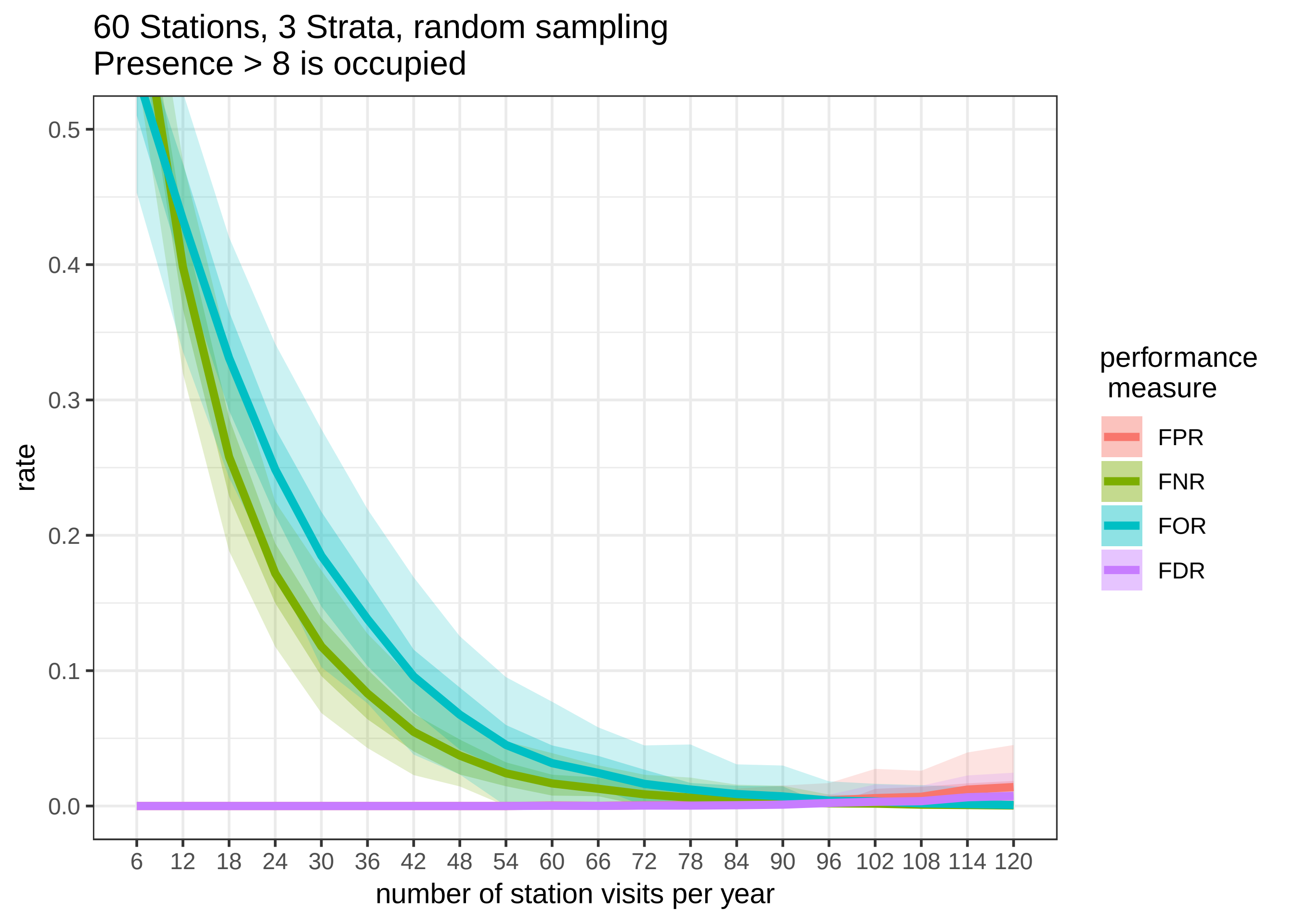


60 Stations, 3 Strata, random sampling
Presence > 5 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

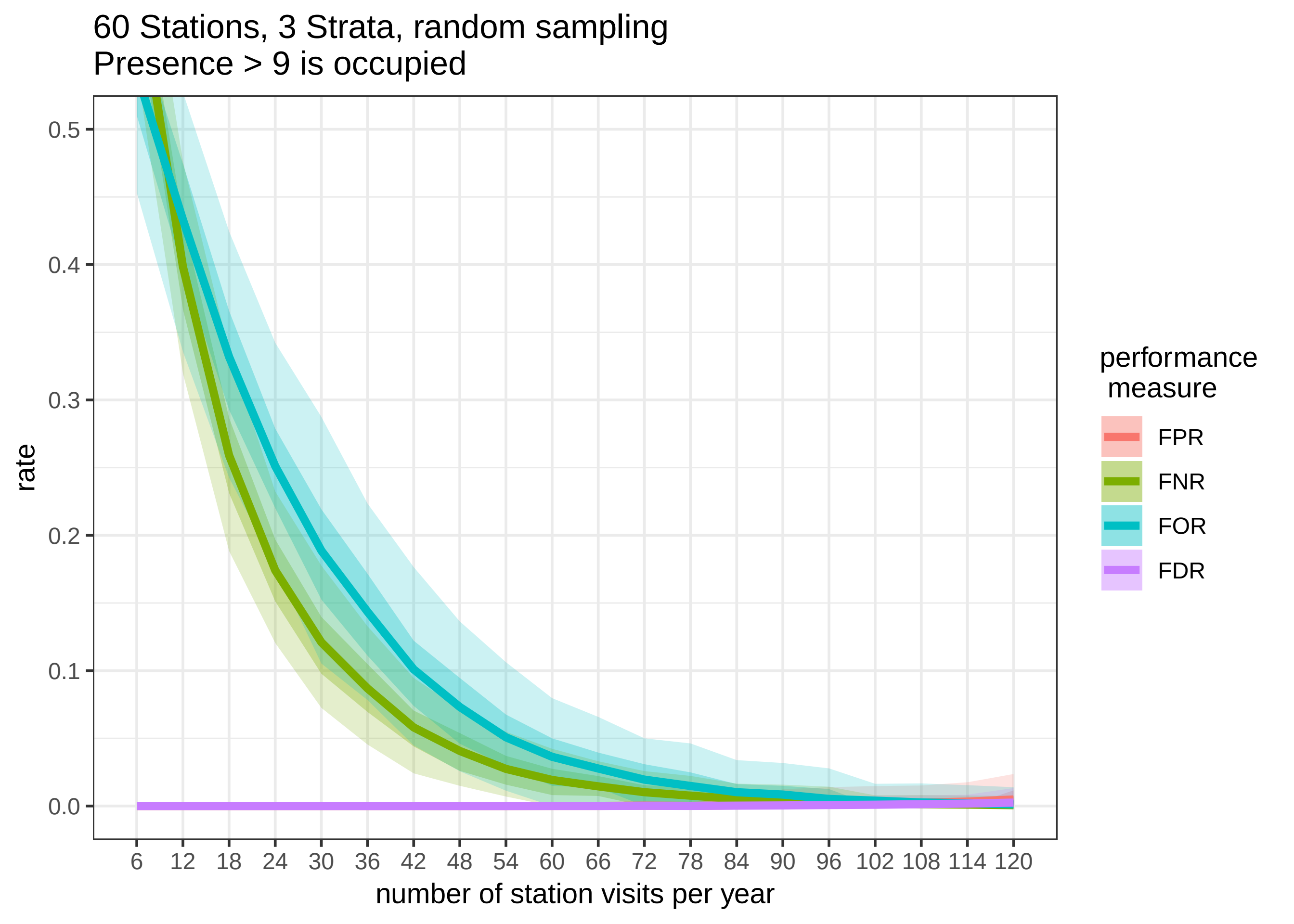

60 Stations, 3 Strata, random sampling
Presence > 6 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



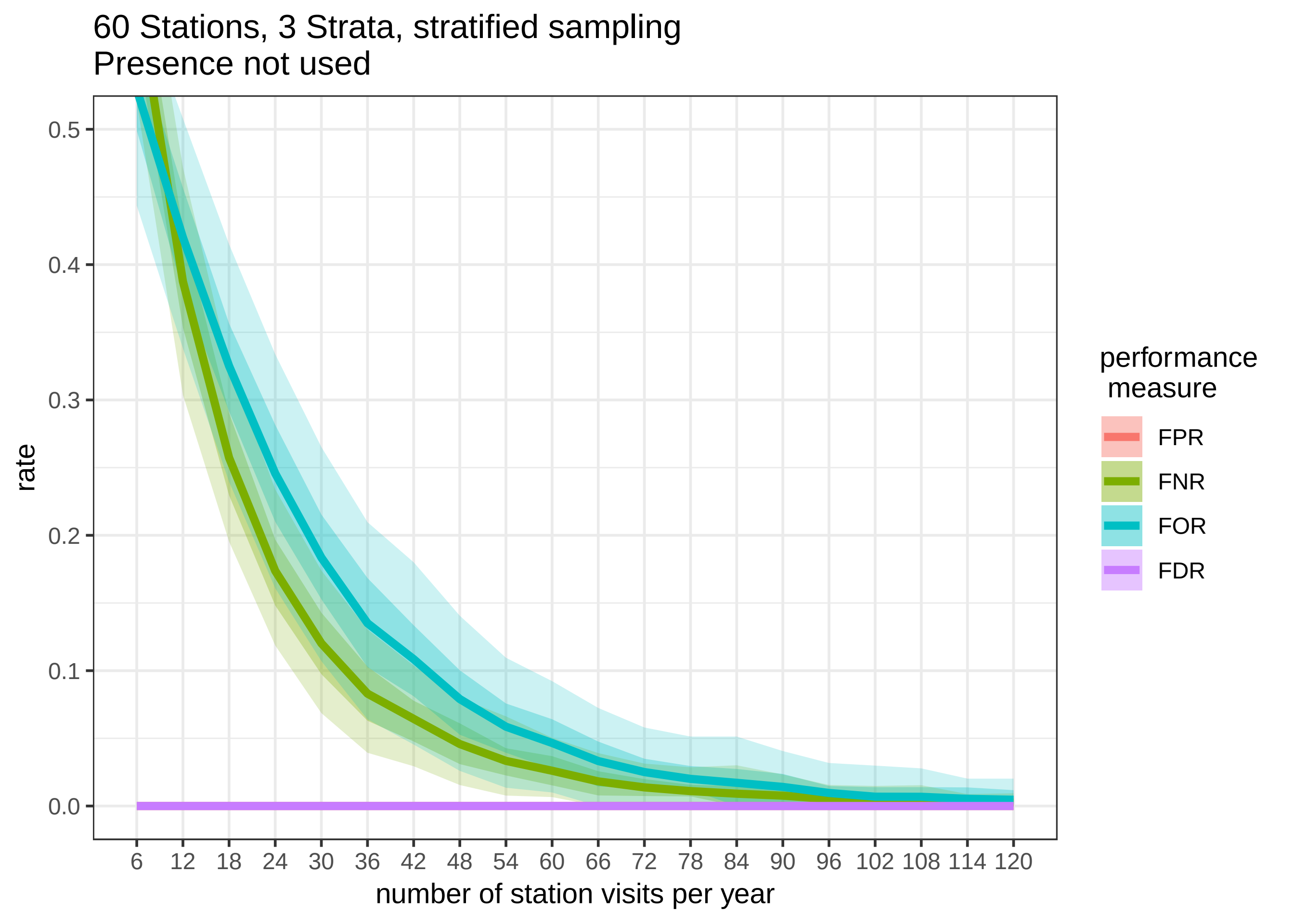
60 Stations, 3 Strata, random sampling
Presence > 7 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



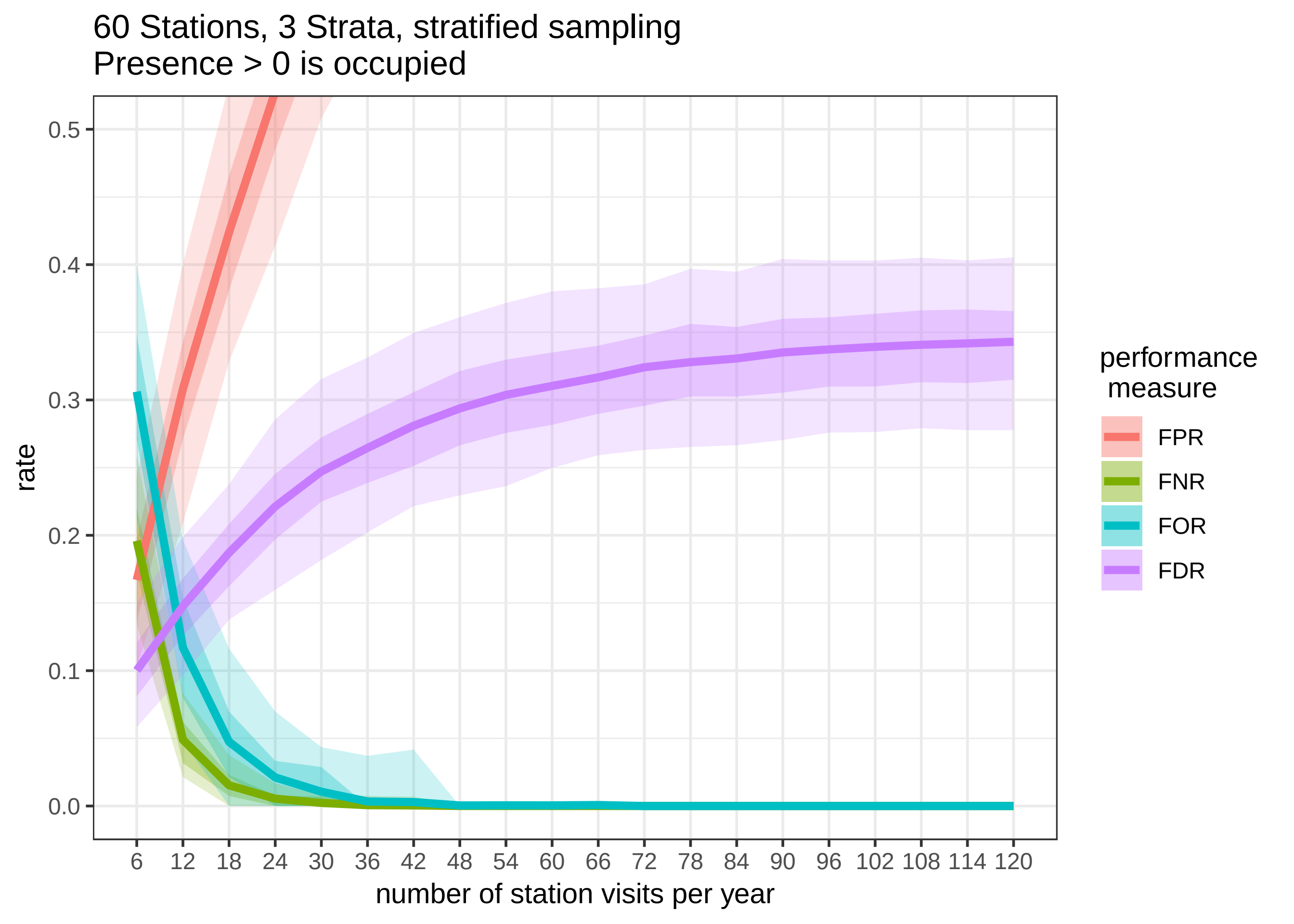
60 Stations, 3 Strata, random sampling
Presence > 8 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance
measure
FPR
FNR
FOR
FDR

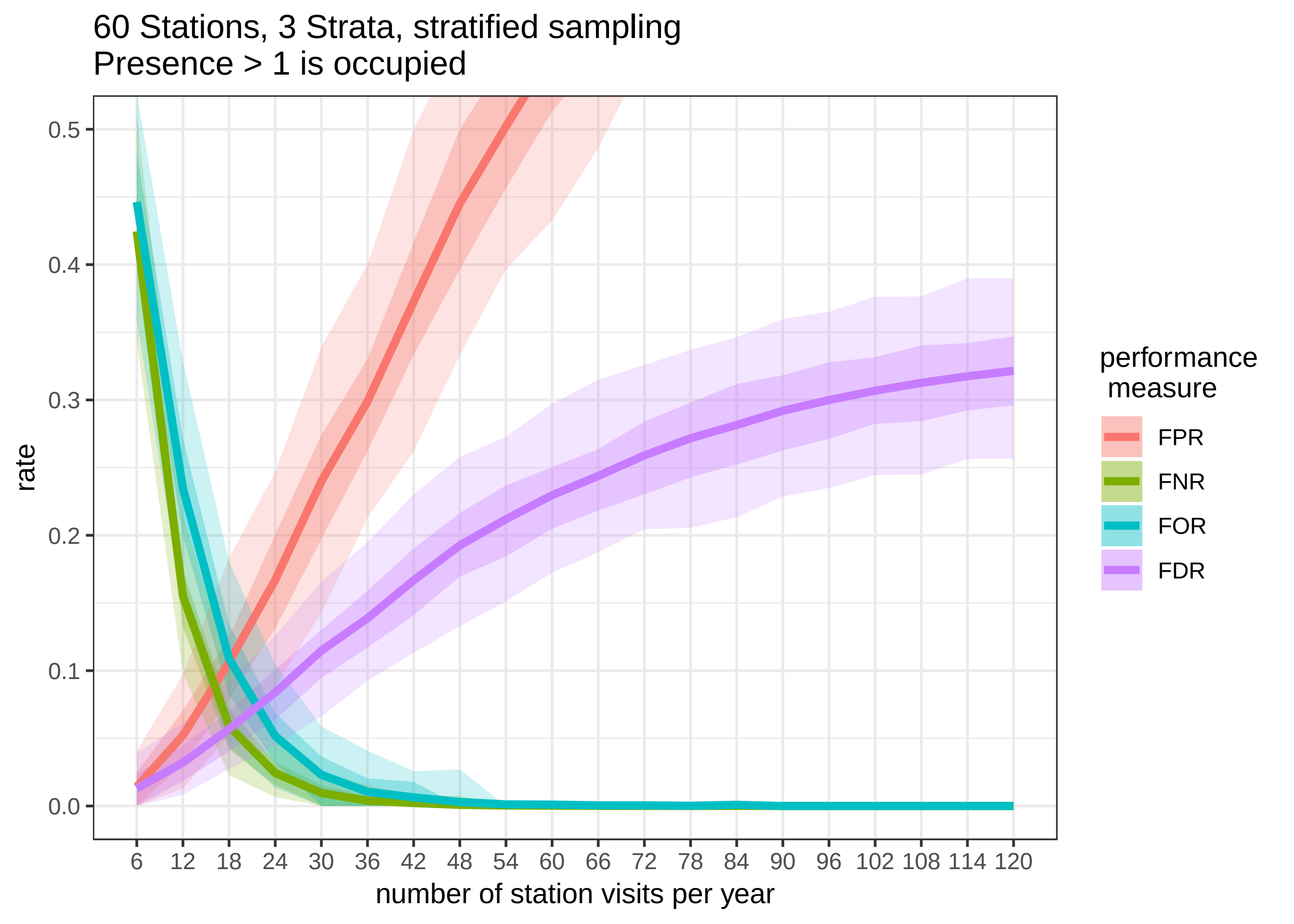


60 Stations, 3 Strata, random sampling
Presence > 9 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

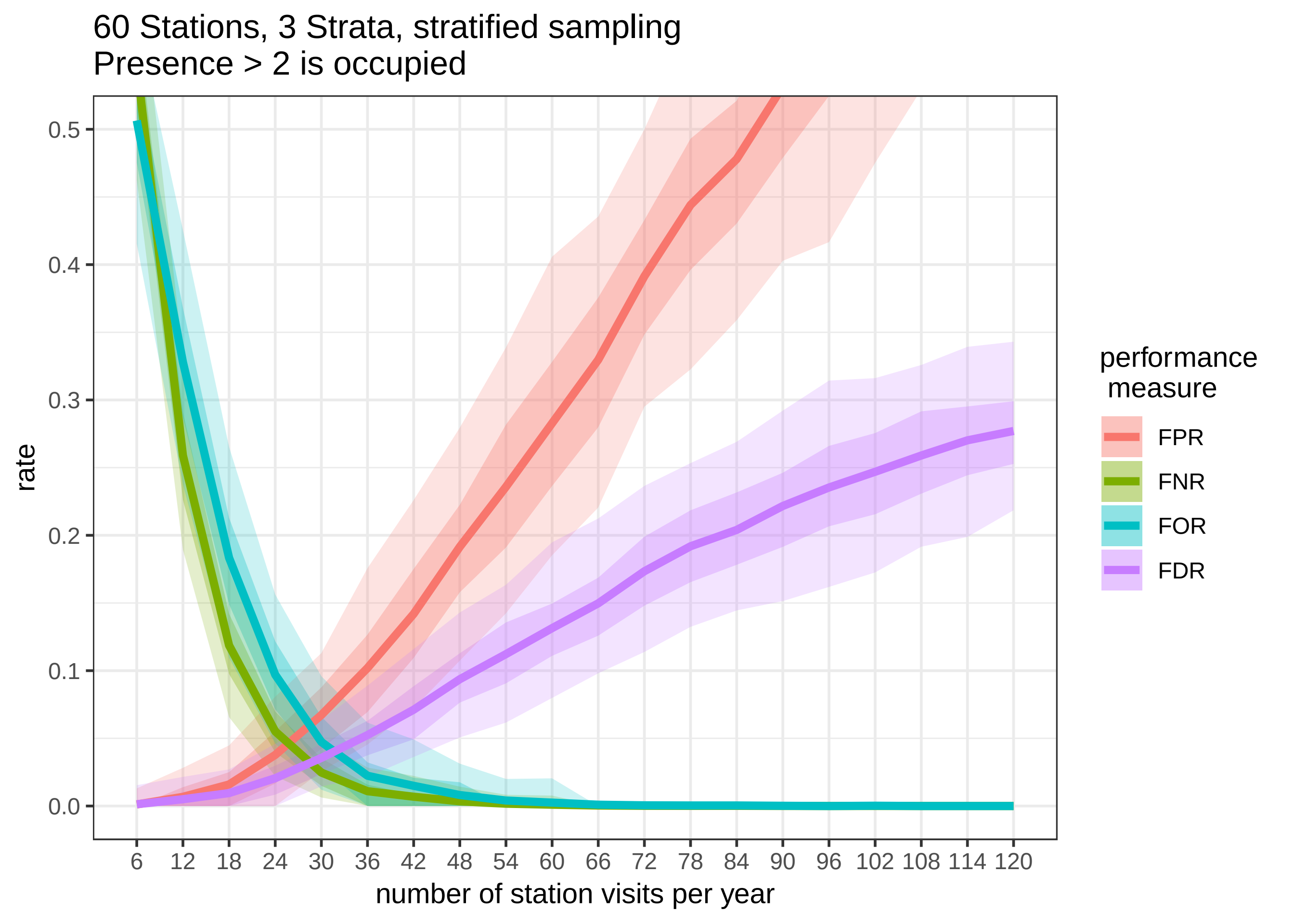


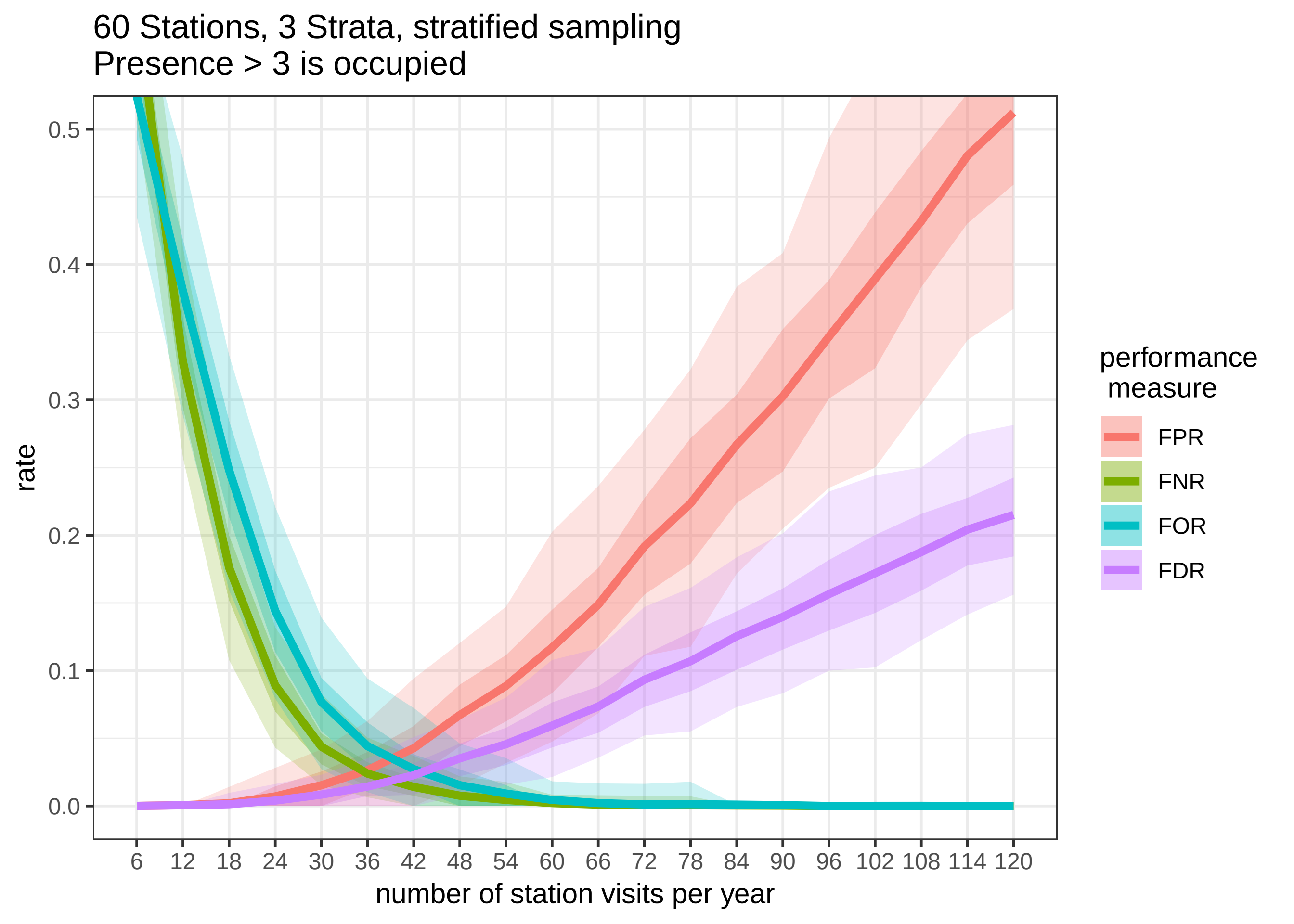
60 Stations, 3 Strata, stratified sampling
Presence not used
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR


60 Stations, 3 Strata, stratified sampling
Presence > 0 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

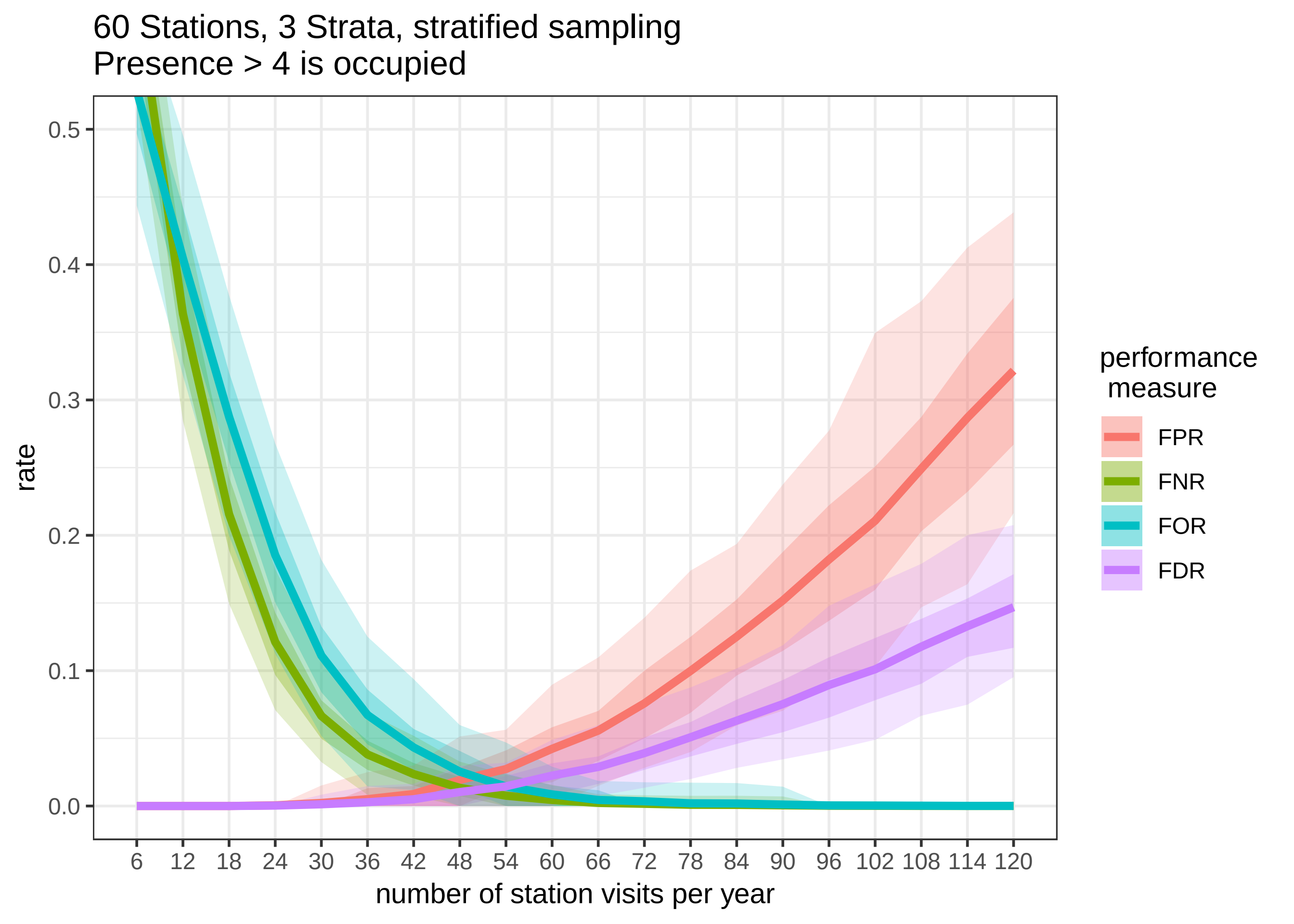


60 Stations, 3 Strata, stratified sampling
Presence > 1 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

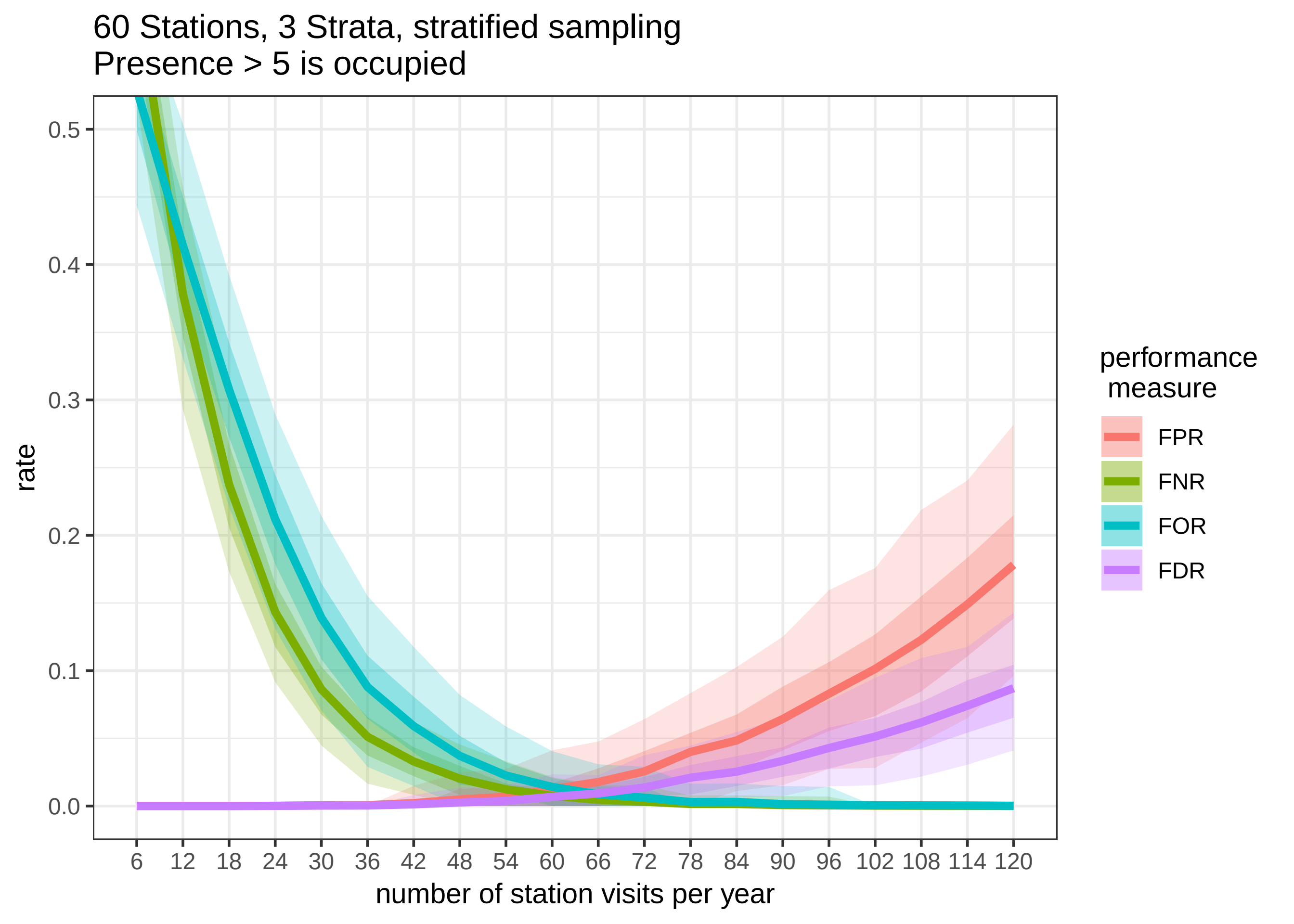

60 Stations, 3 Strata, stratified sampling
Presence > 2 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

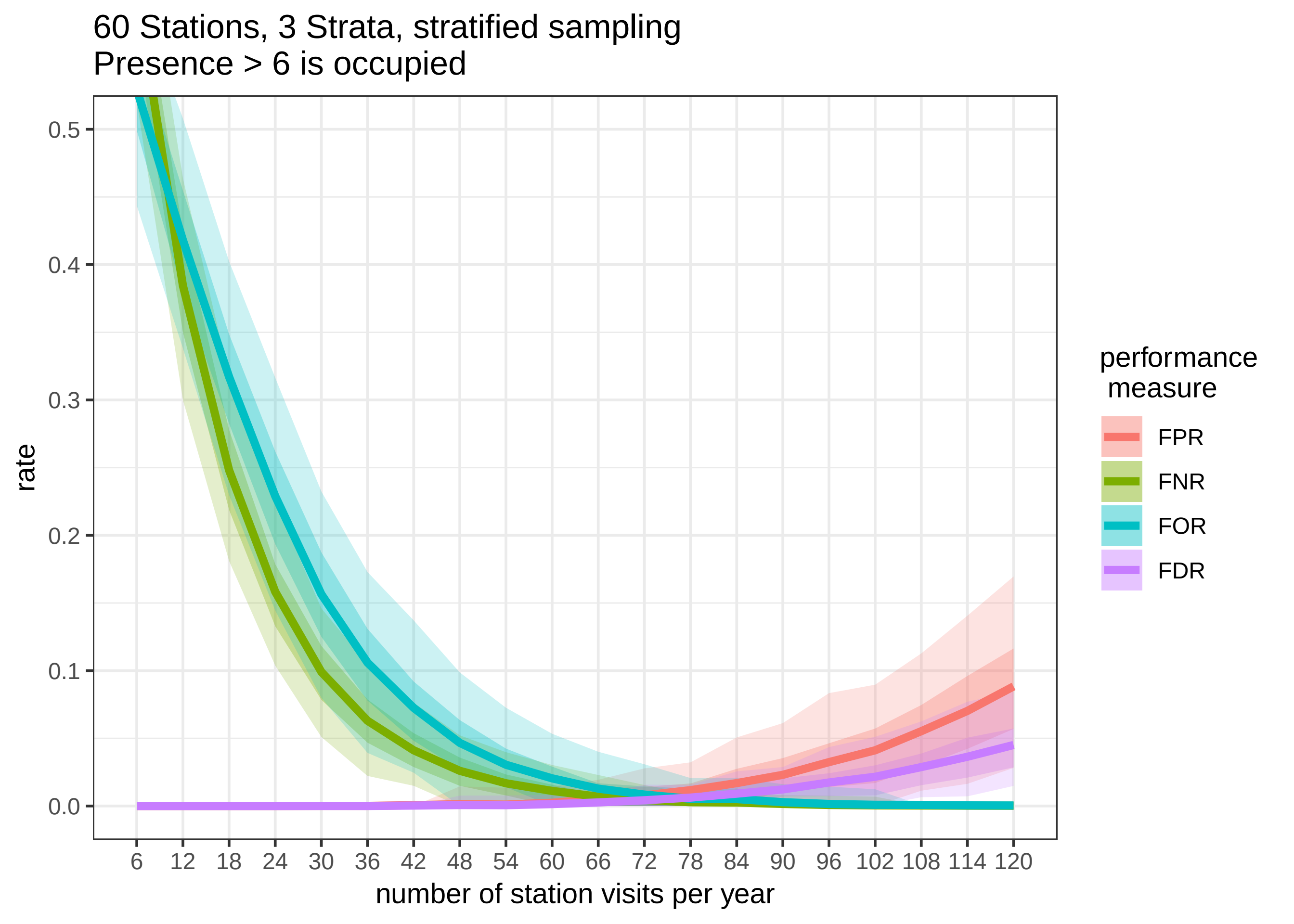


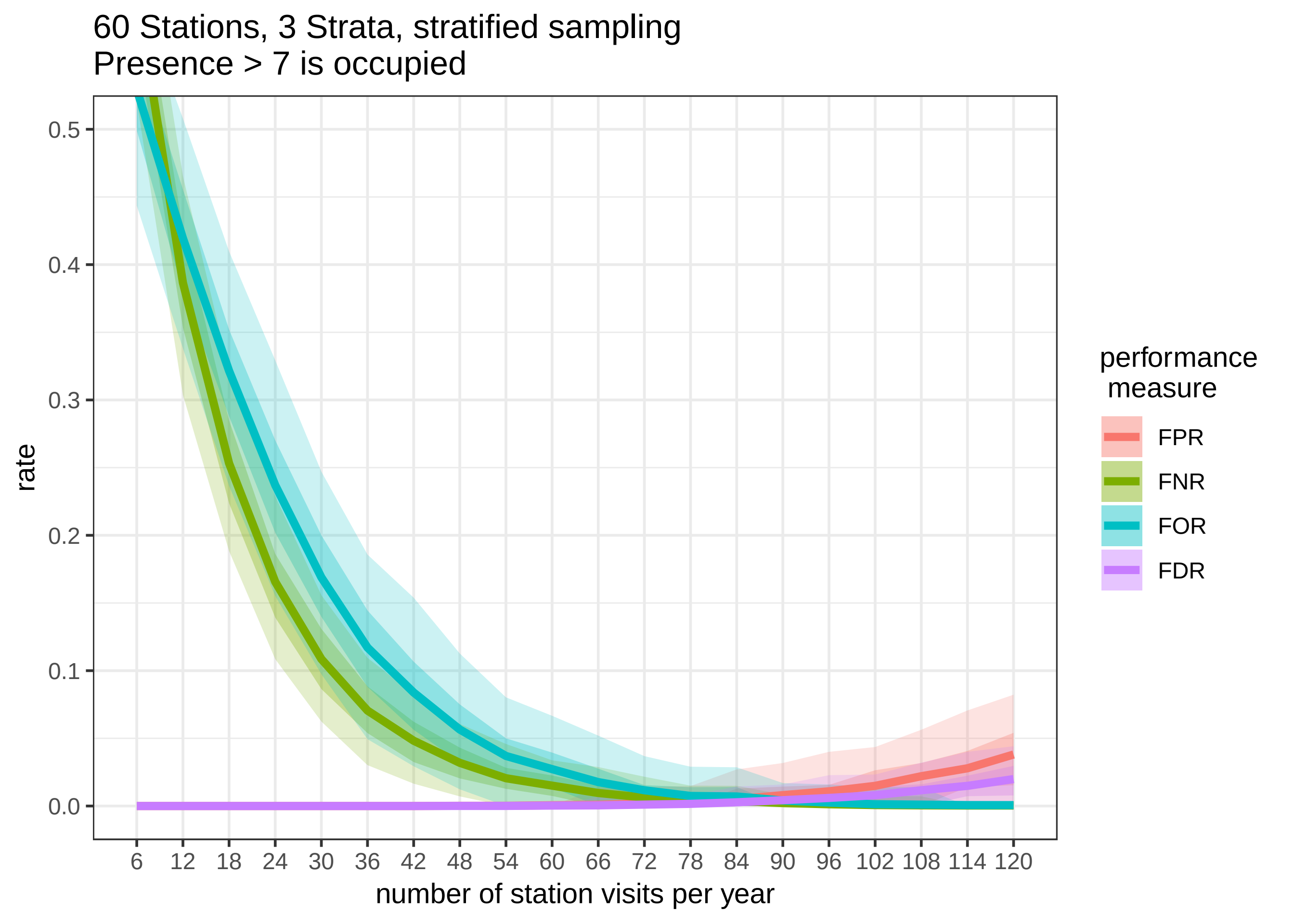
60 Stations, 3 Strata, stratified sampling
Presence > 3 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



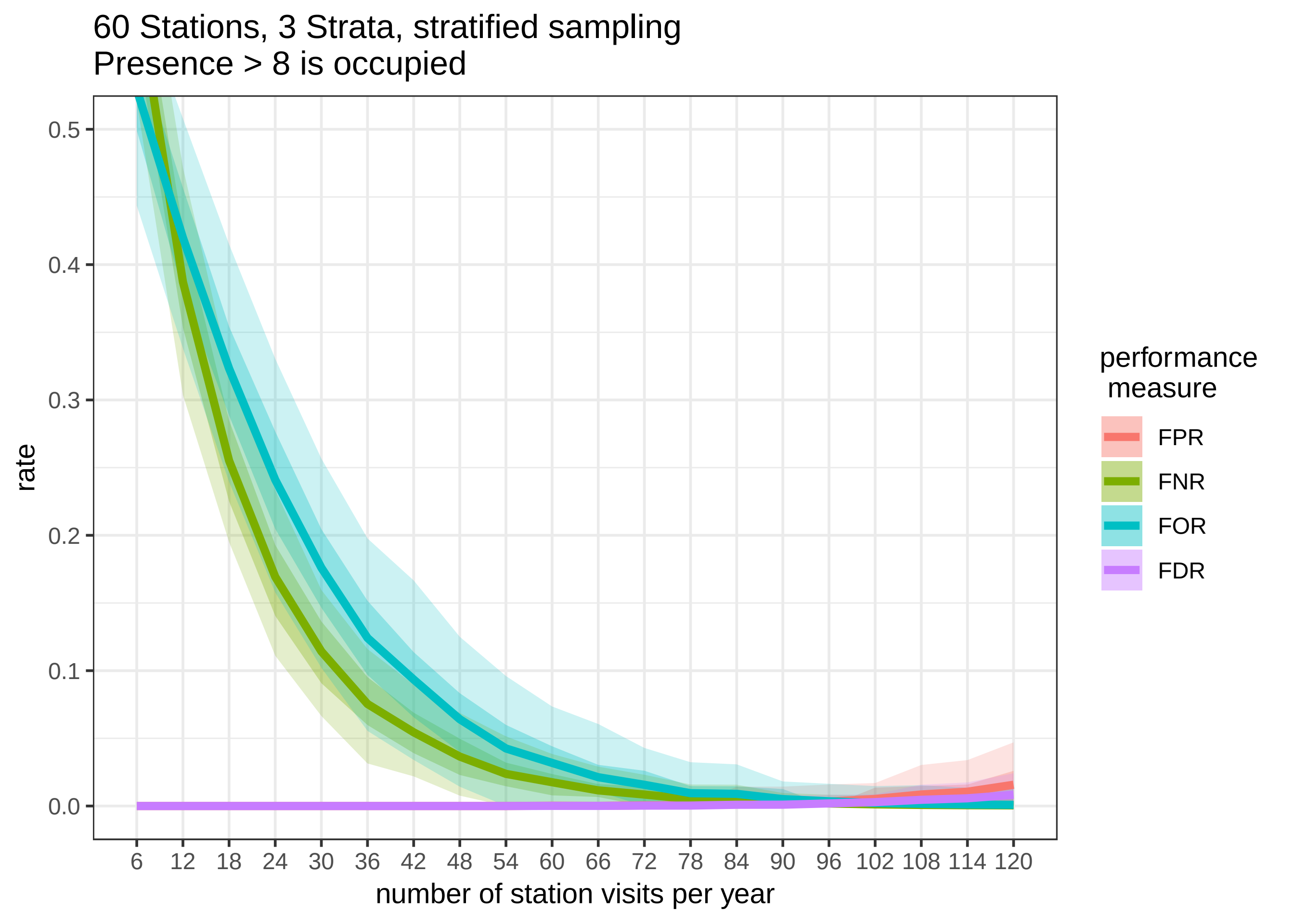
60 Stations, 3 Strata, stratified sampling
Presence > 4 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR


60 Stations, 3 Strata, stratified sampling
Presence > 5 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

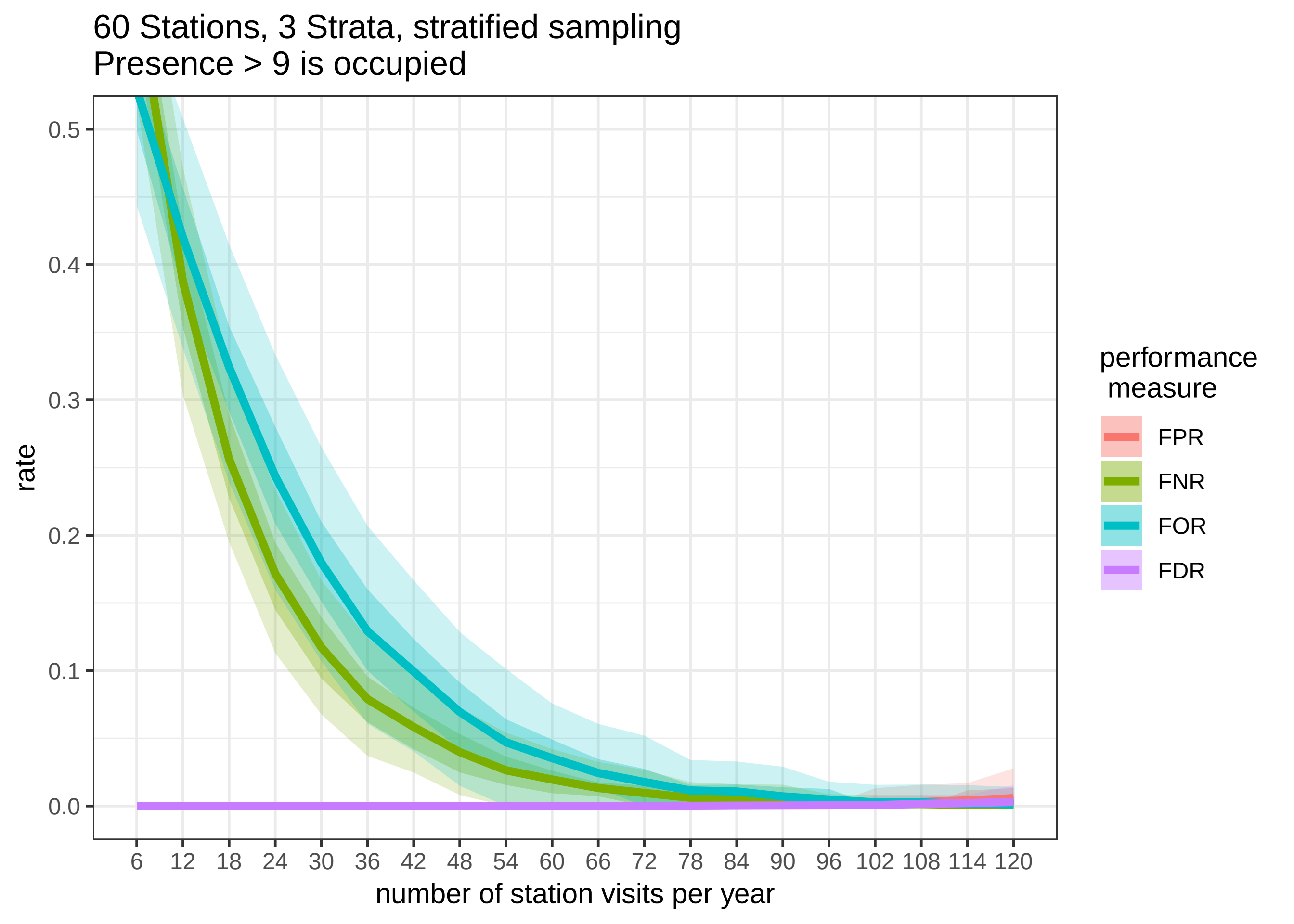

60 Stations, 3 Strata, stratified sampling
Presence > 6 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



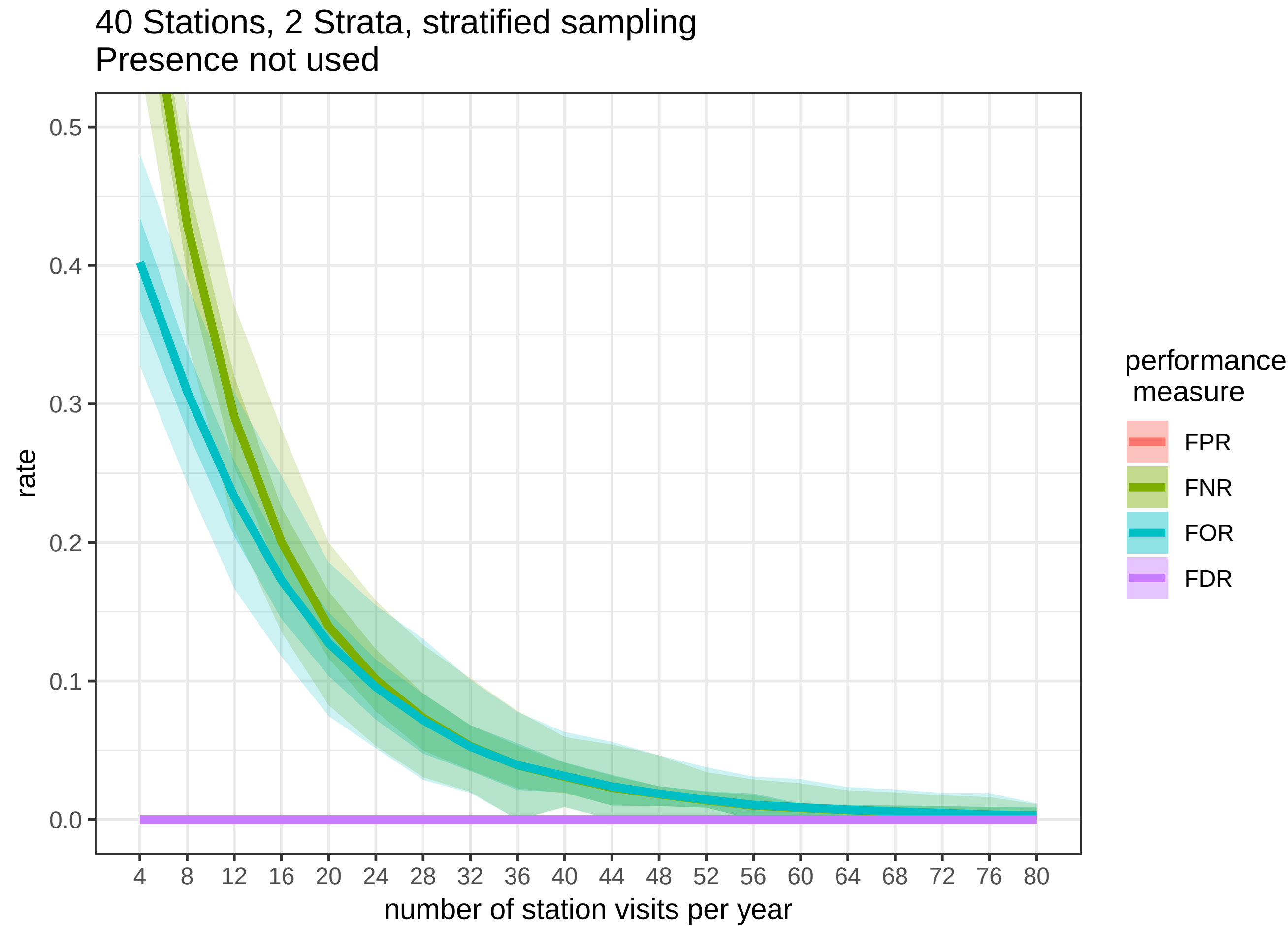
60 Stations, 3 Strata, stratified sampling
Presence > 7 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



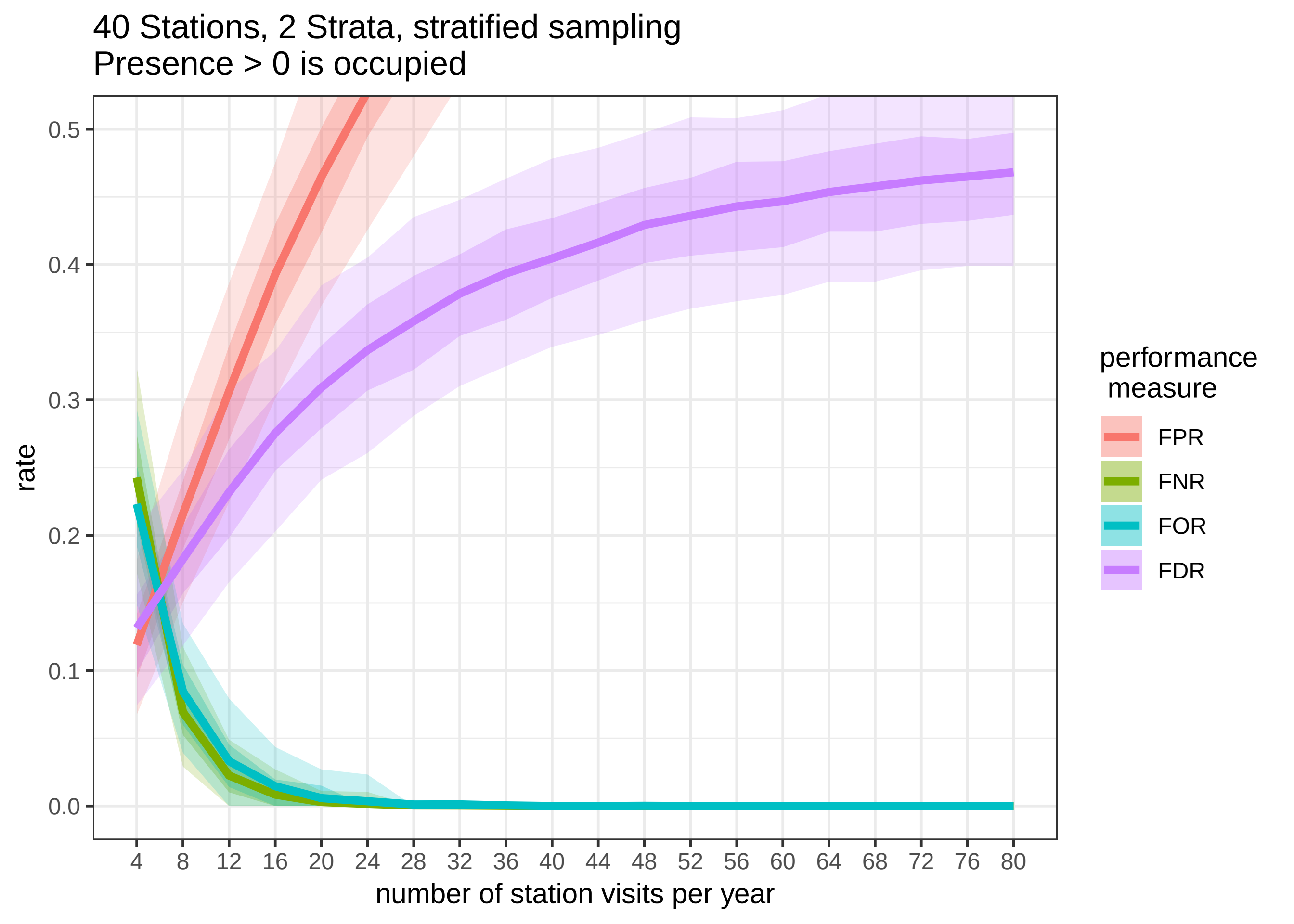
60 Stations, 3 Strata, stratified sampling
Presence > 8 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



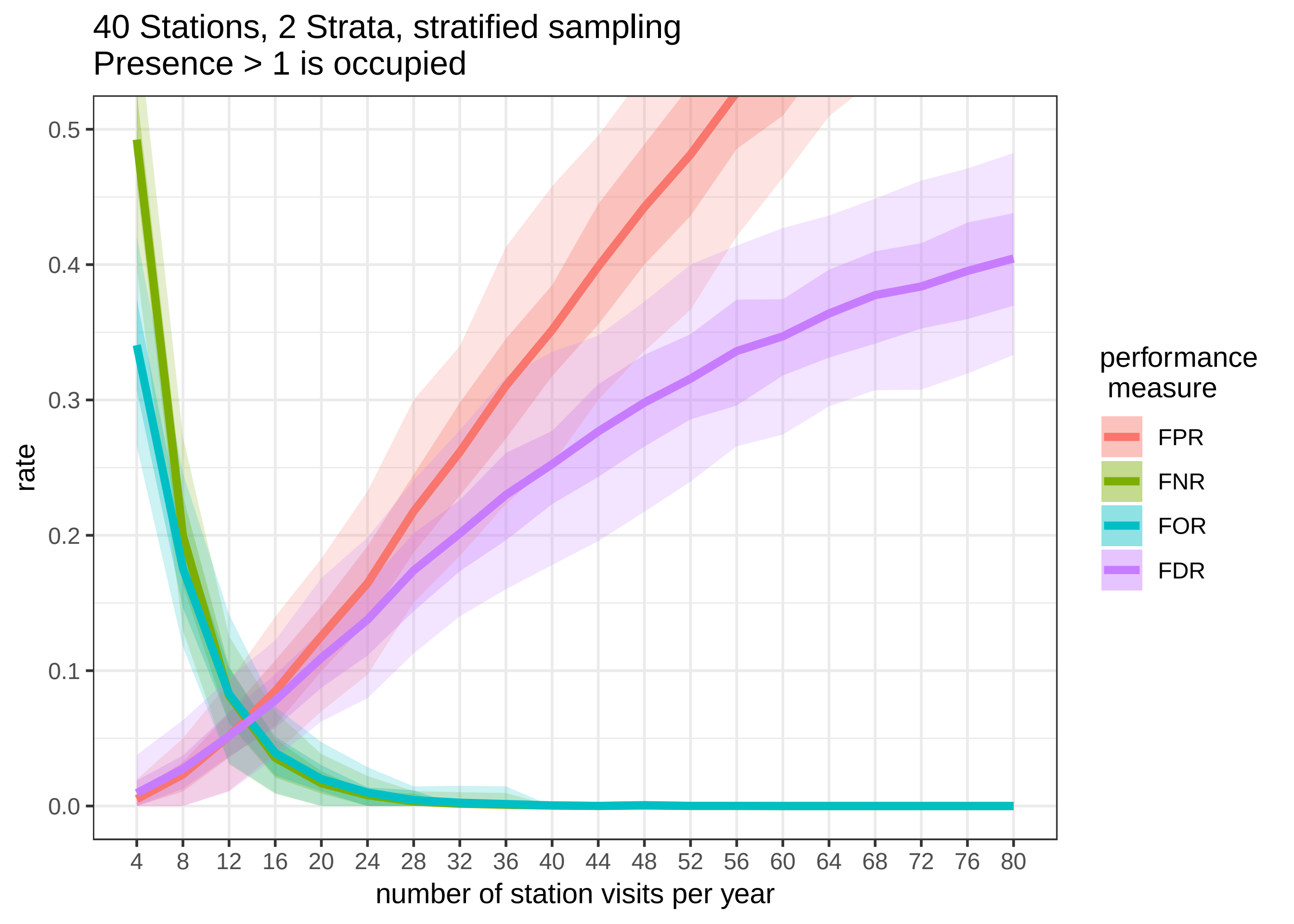
60 Stations, 3 Strata, stratified sampling
Presence > 9 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



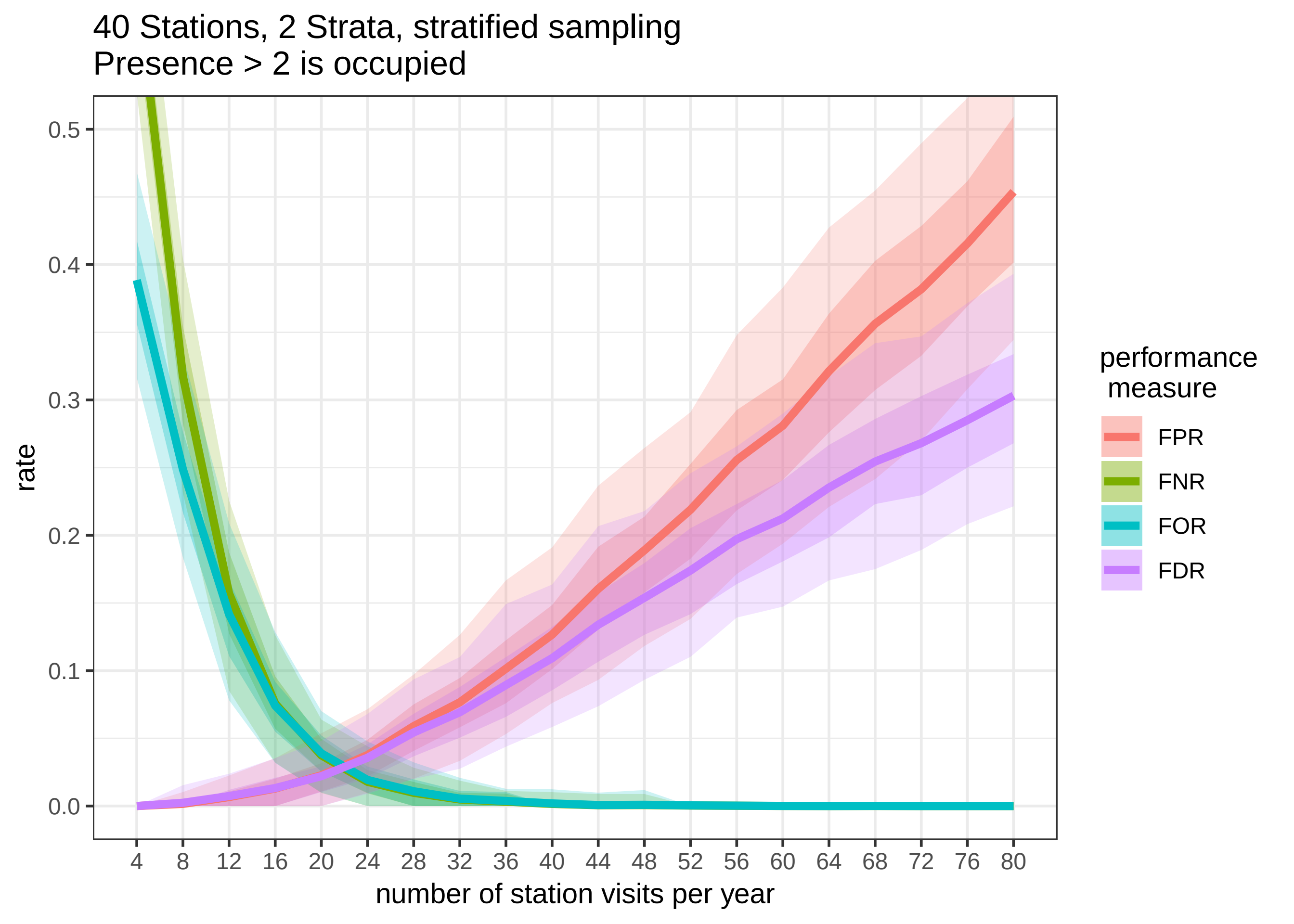
40 Stations, 2 Strata, stratified sampling
Presence not used
rate
0.5
0.4
0.3
0.2
0.1
0.0
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

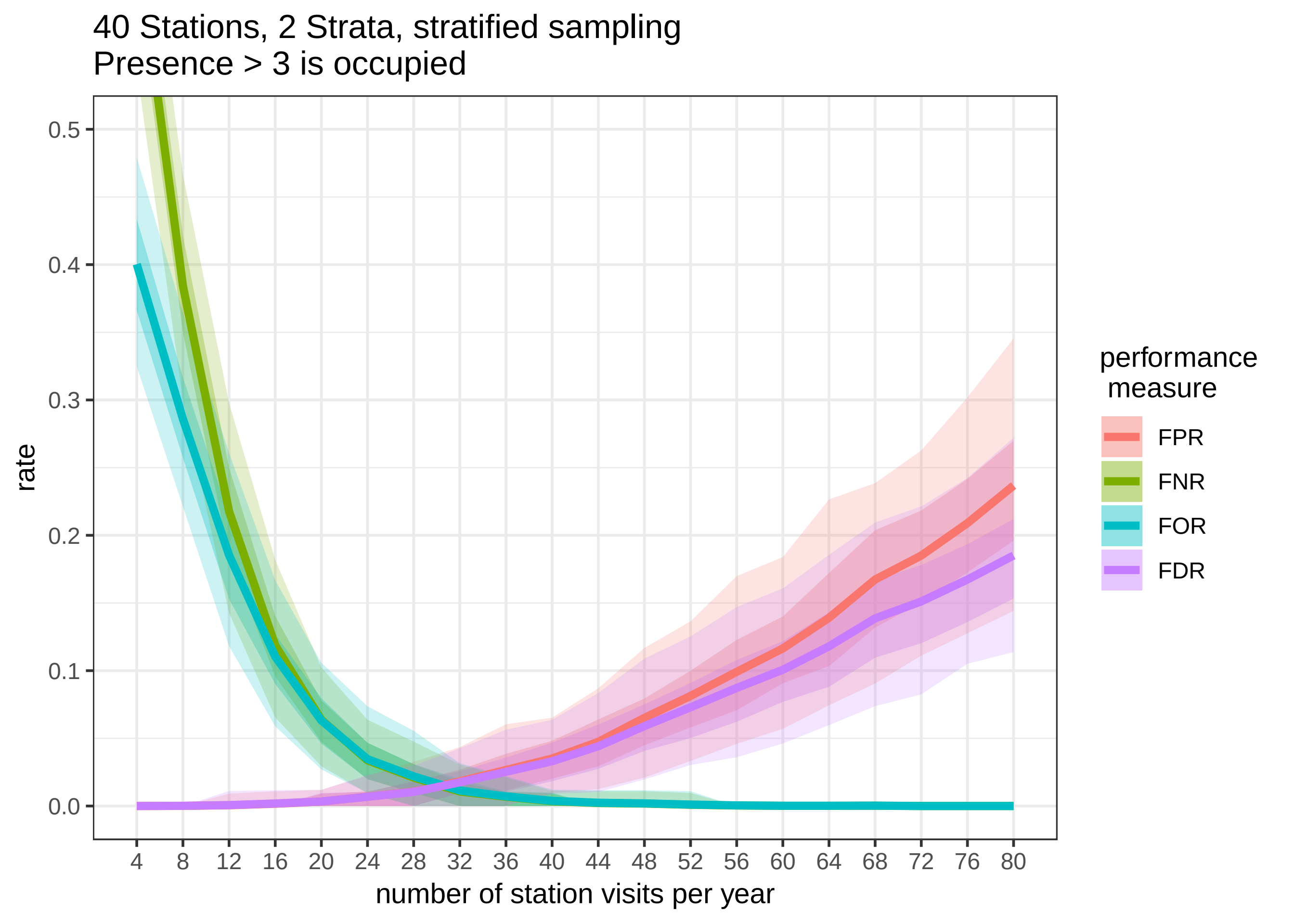


40 Stations, 2 Strata, stratified sampling
Presence > 0 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

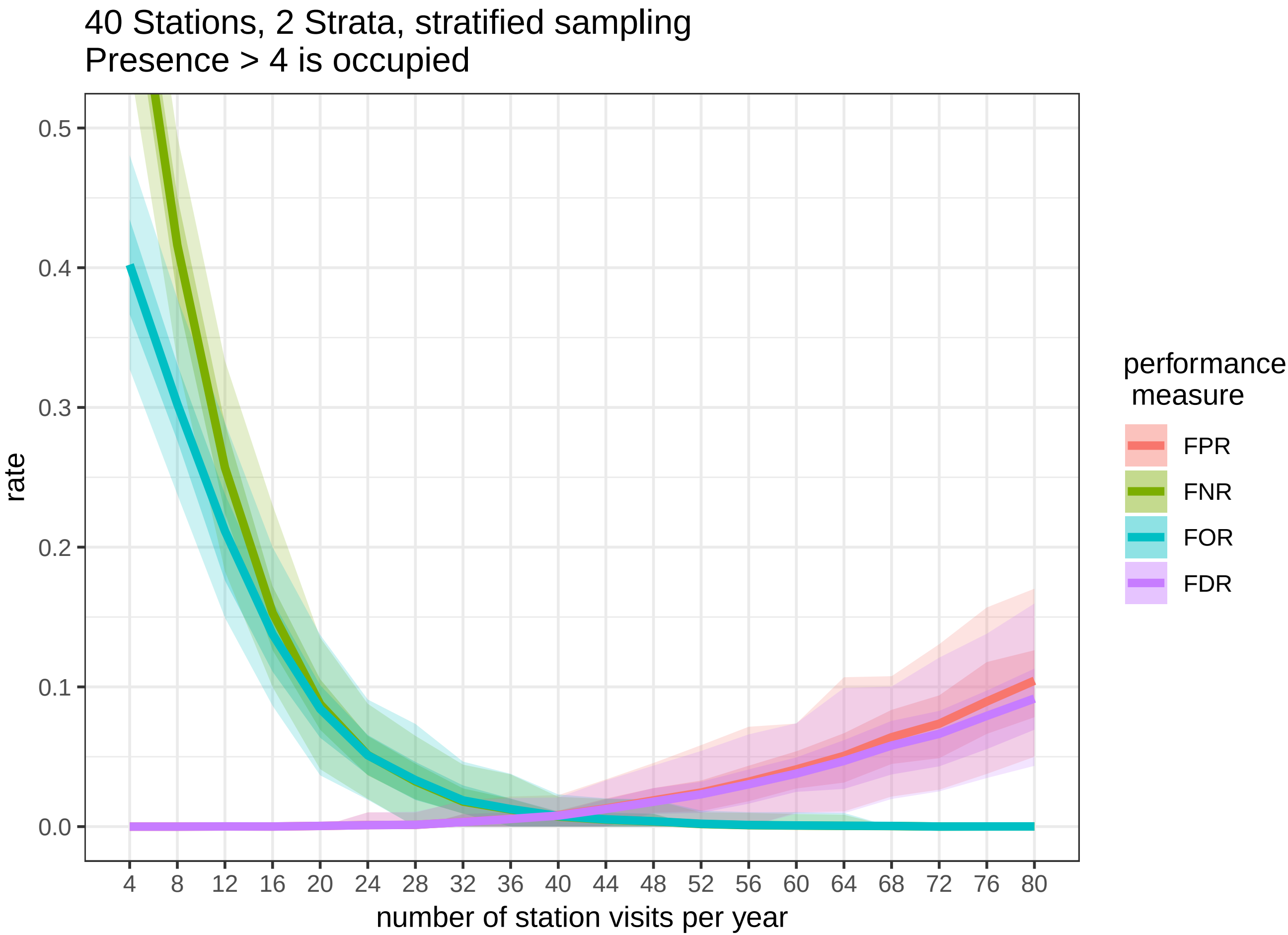


40 Stations, 2 Strata, stratified sampling
Presence > 1 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

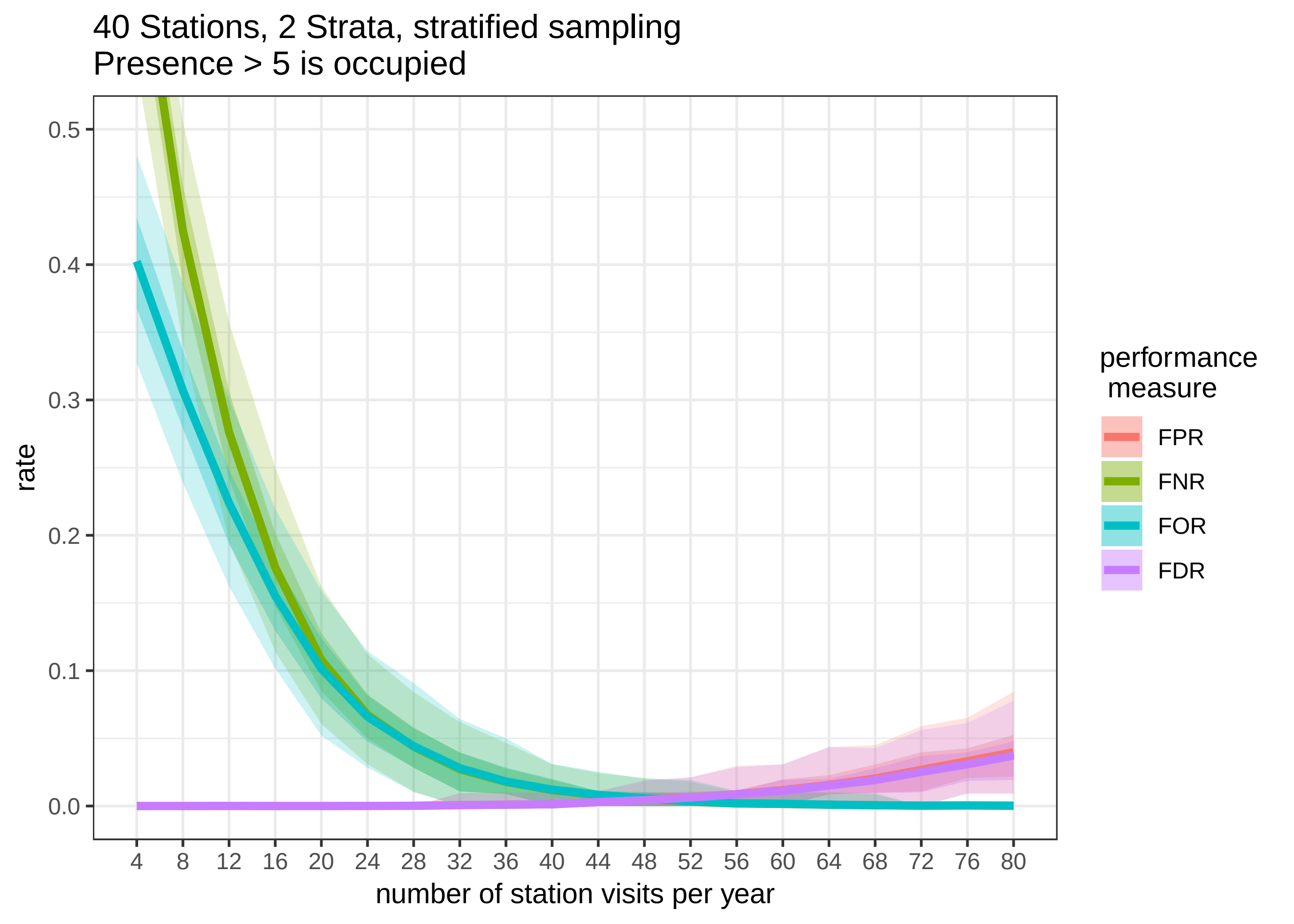

40 Stations, 2 Strata, stratified sampling
Presence > 2 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

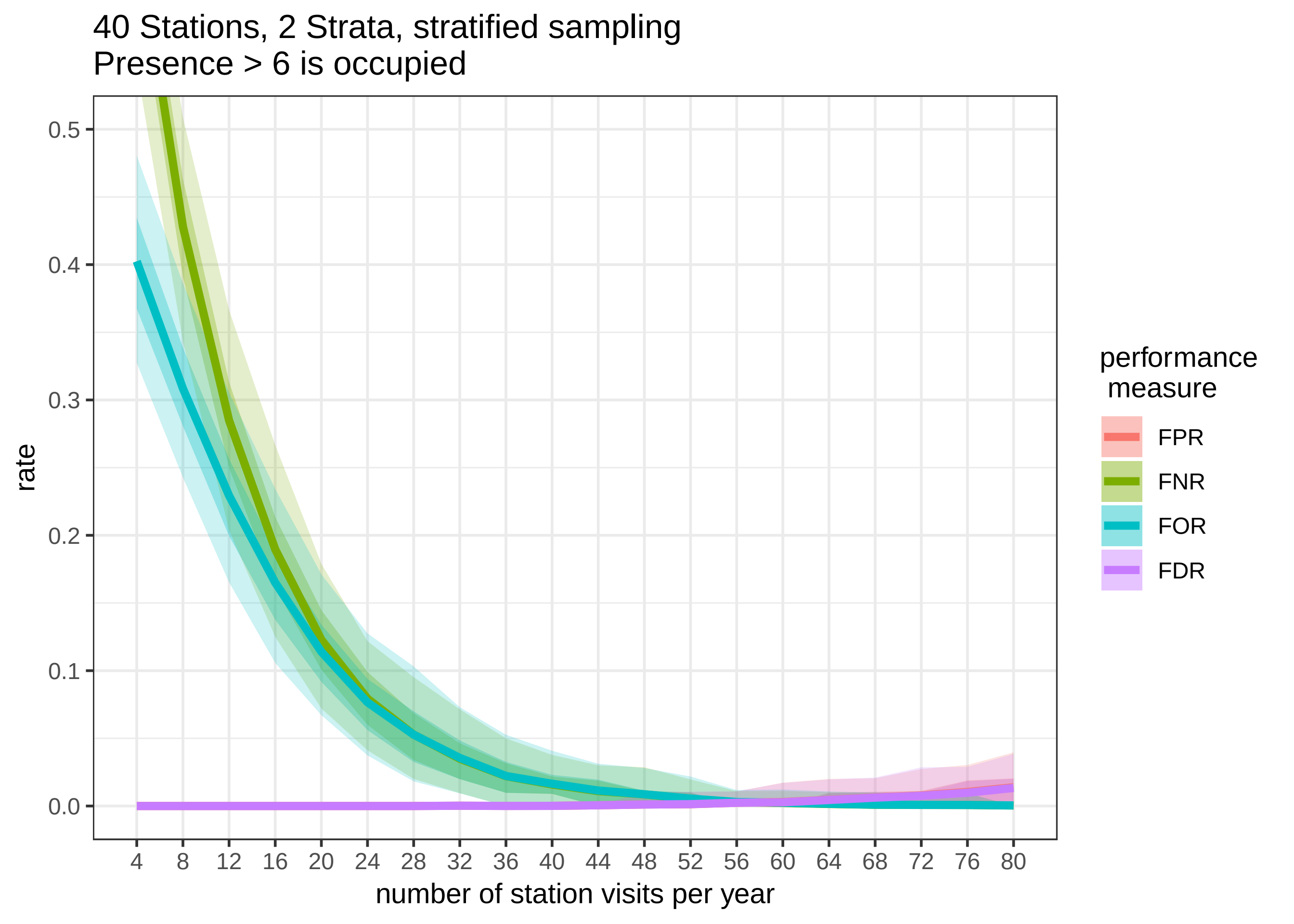


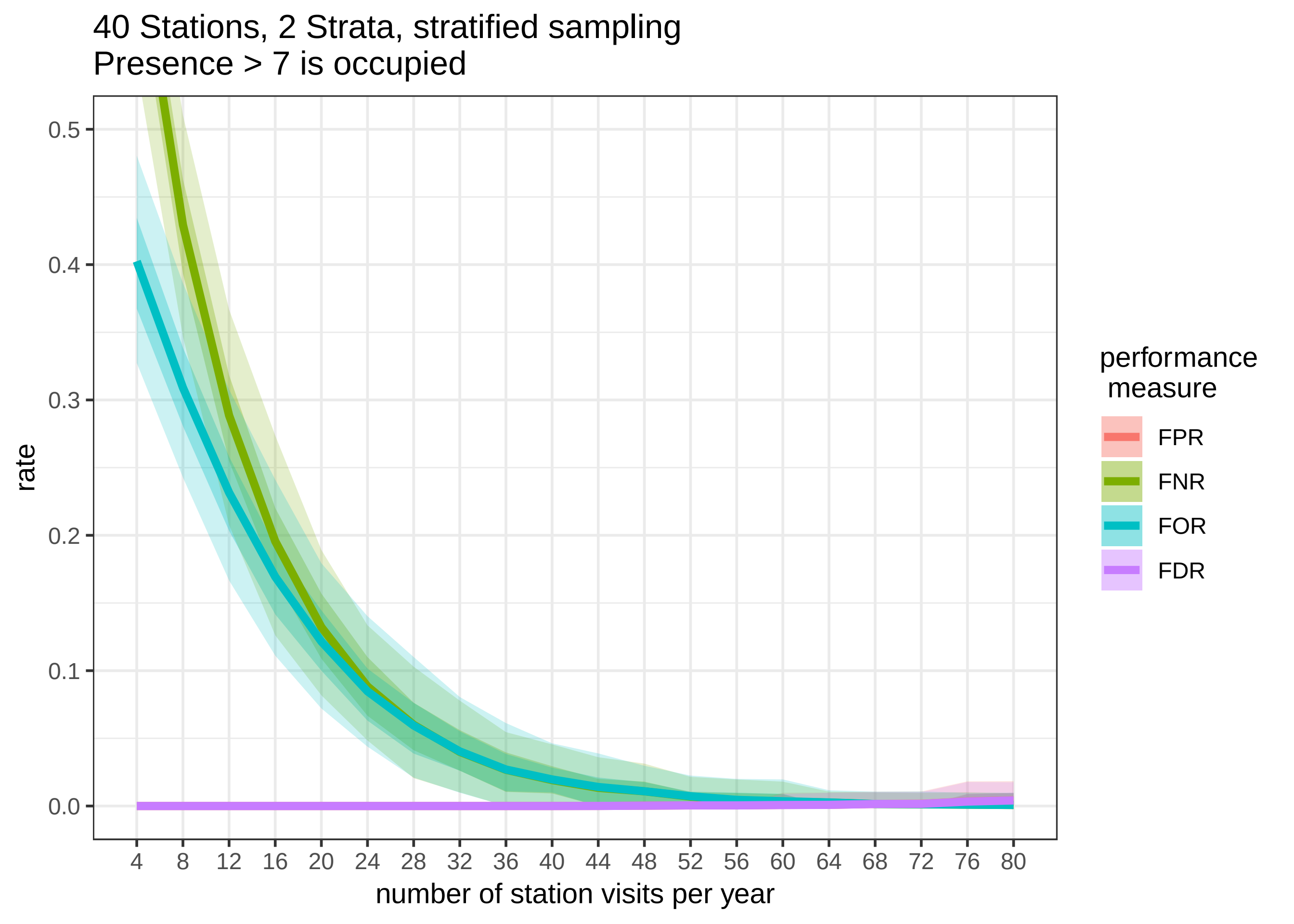
40 Stations, 2 Strata, stratified sampling
Presence > 3 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance
measure
FPR
FNR
FOR
FDR



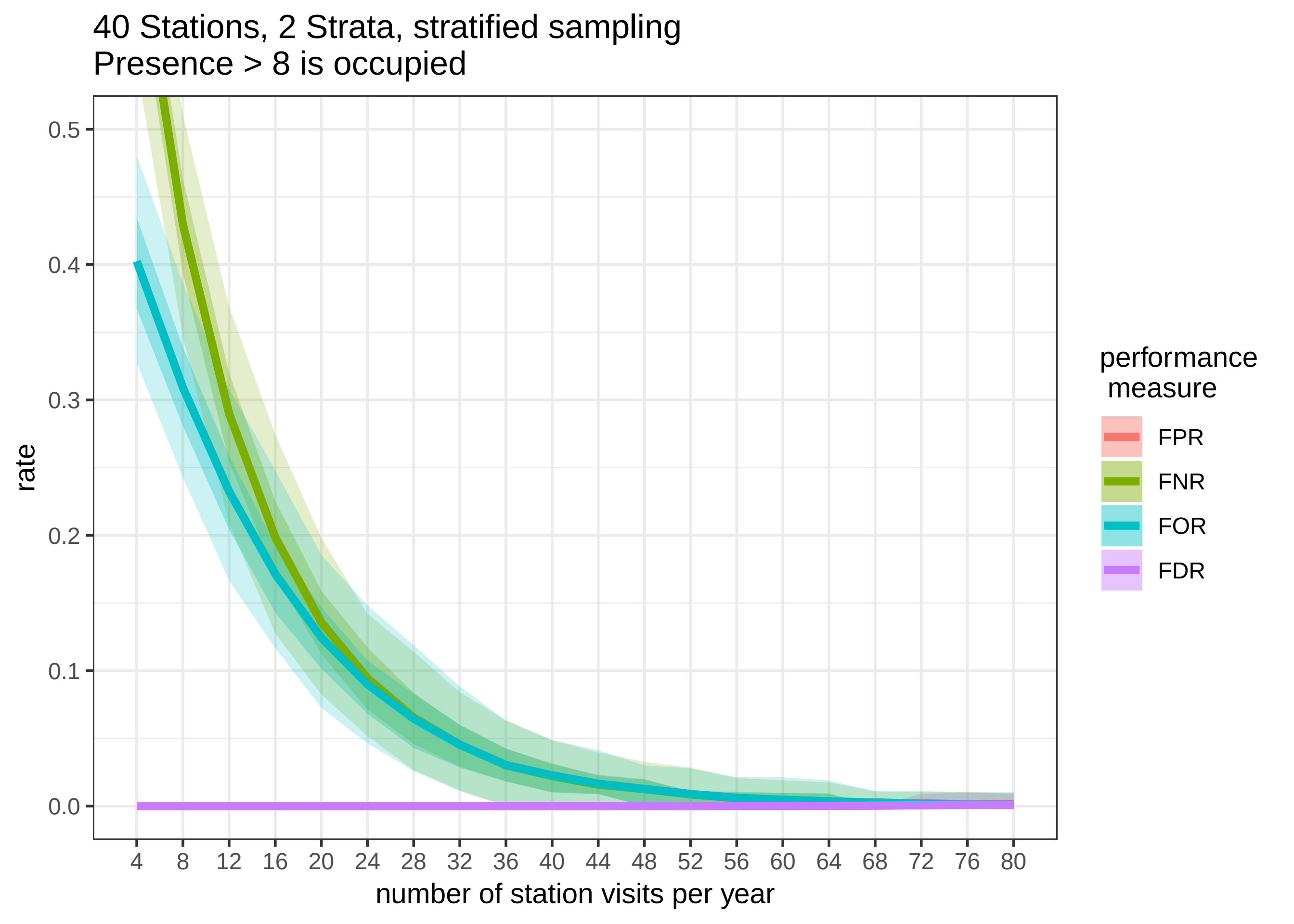
40 Stations, 2 Strata, stratified sampling
Presence > 4 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80
number of station visits per year
performance measure
FPR
FNR
FOR
FDR


40 Stations, 2 Strata, stratified sampling
Presence > 5 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

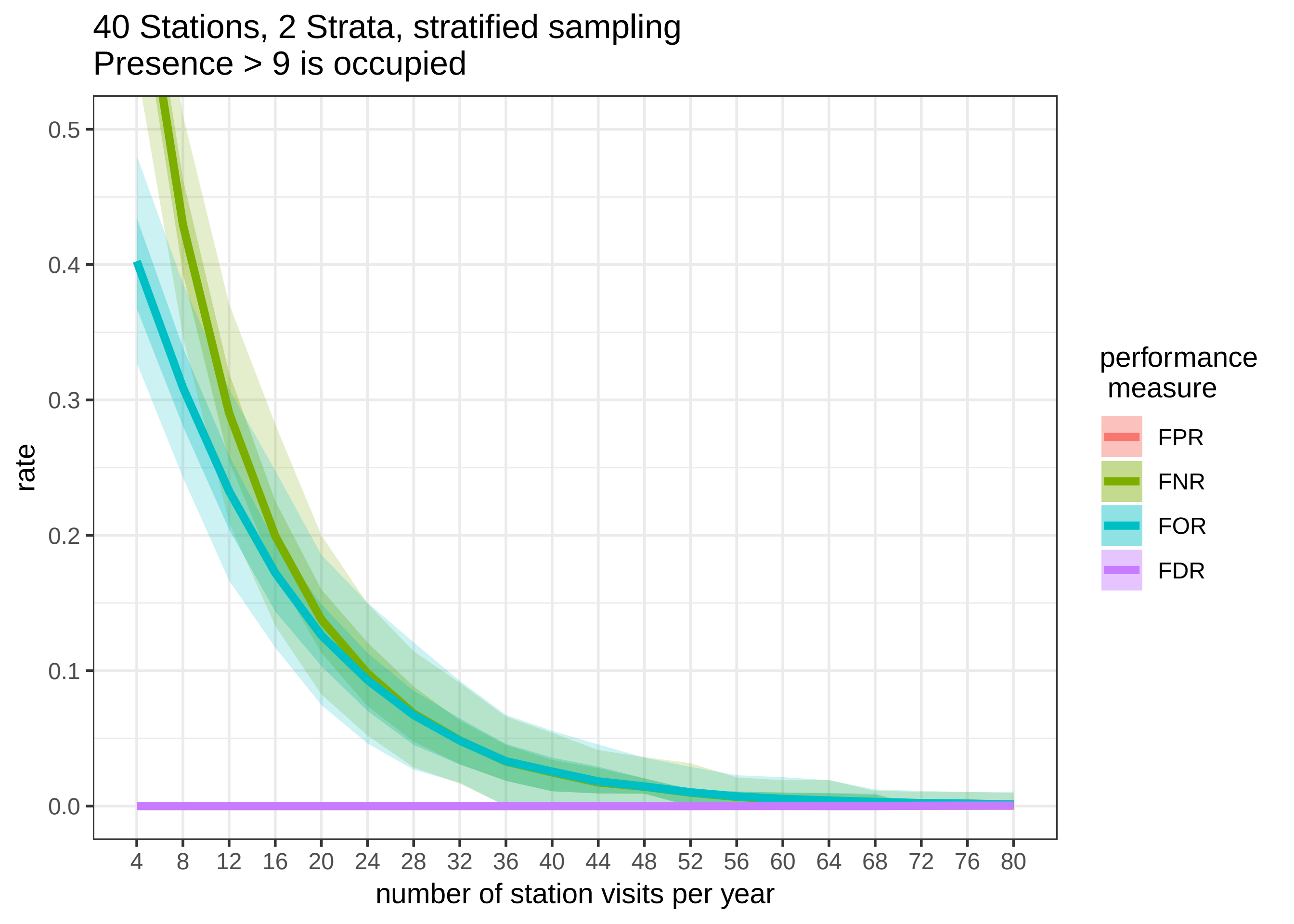

40 Stations, 2 Strata, stratified sampling
Presence > 6 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FPR
FNR
FOR
FDR



40 Stations, 2 Strata, stratified sampling
Presence > 7 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

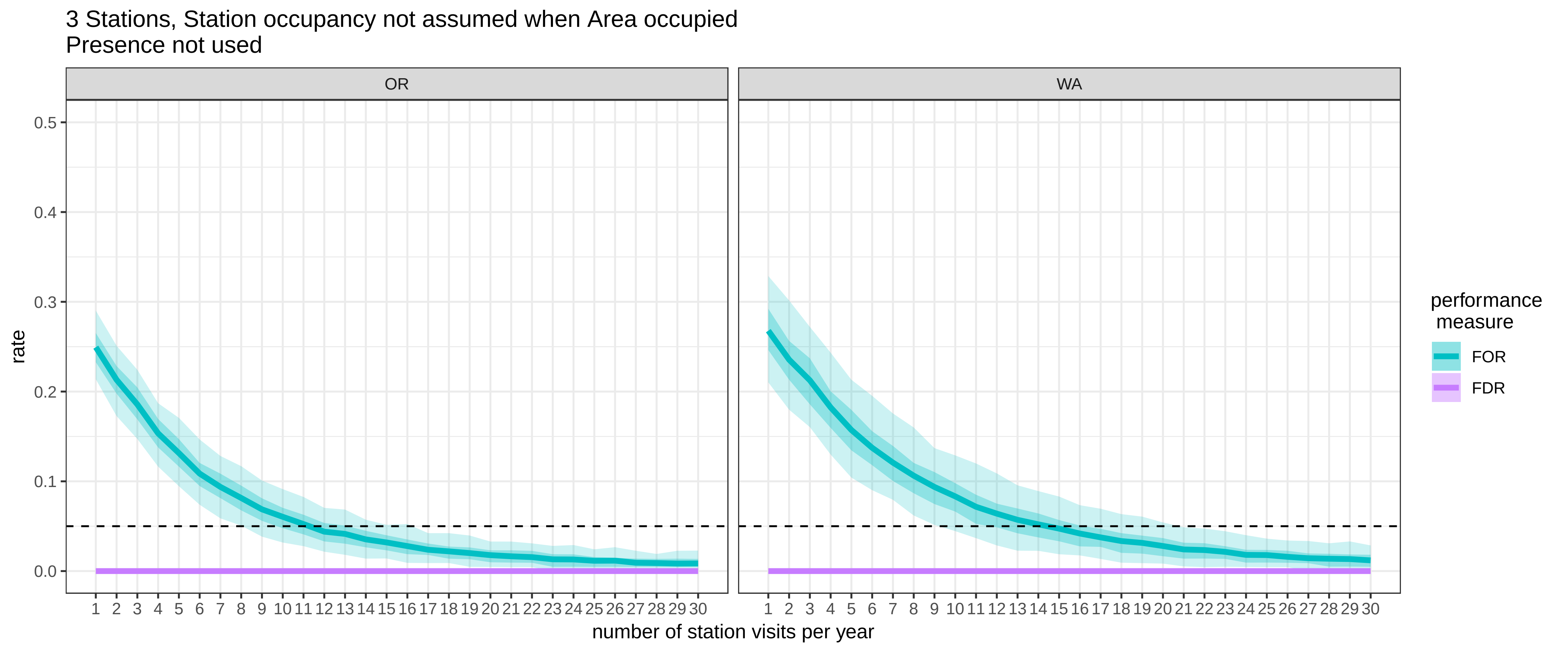


40 Stations, 2 Strata, stratified sampling
Presence > 8 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

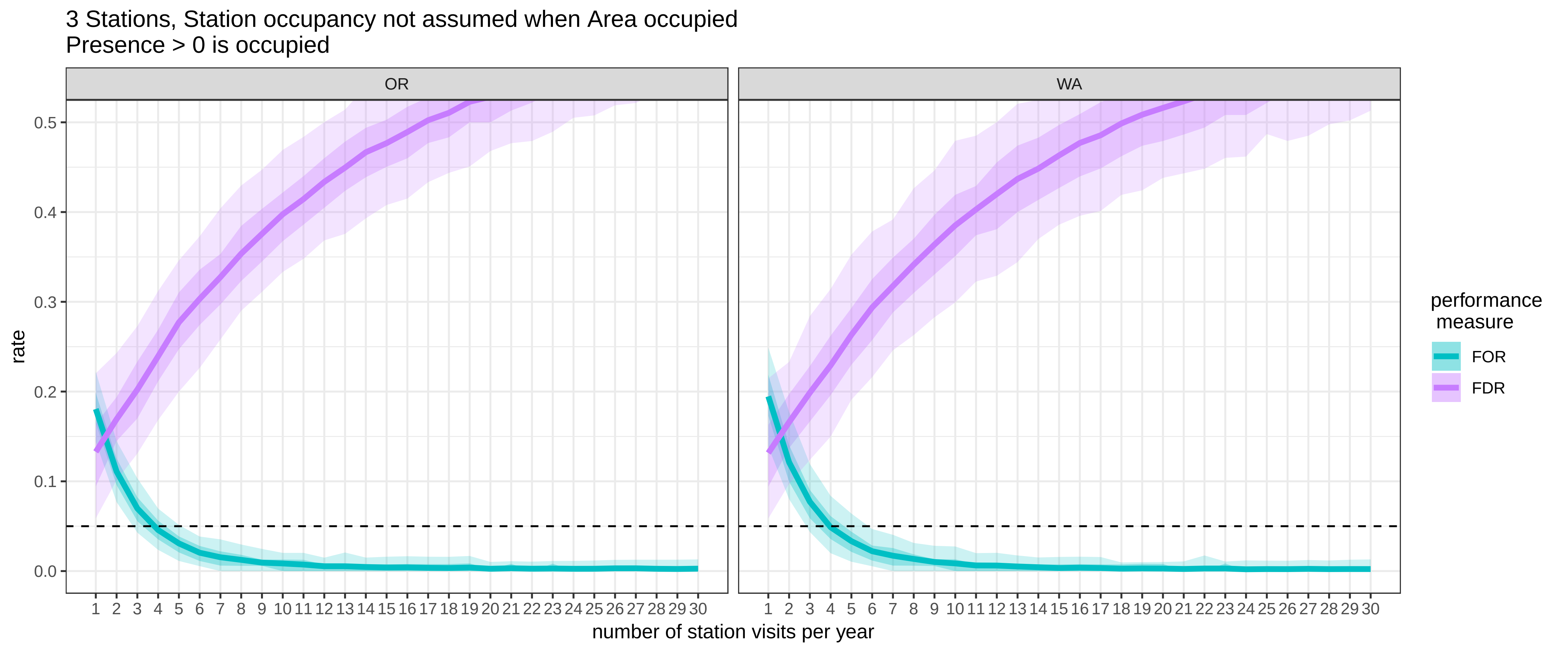

40 Stations, 2 Strata, stratified sampling
Presence > 9 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FPR
FNR
FOR
FDR

Figures with FOR and FPR separated by state

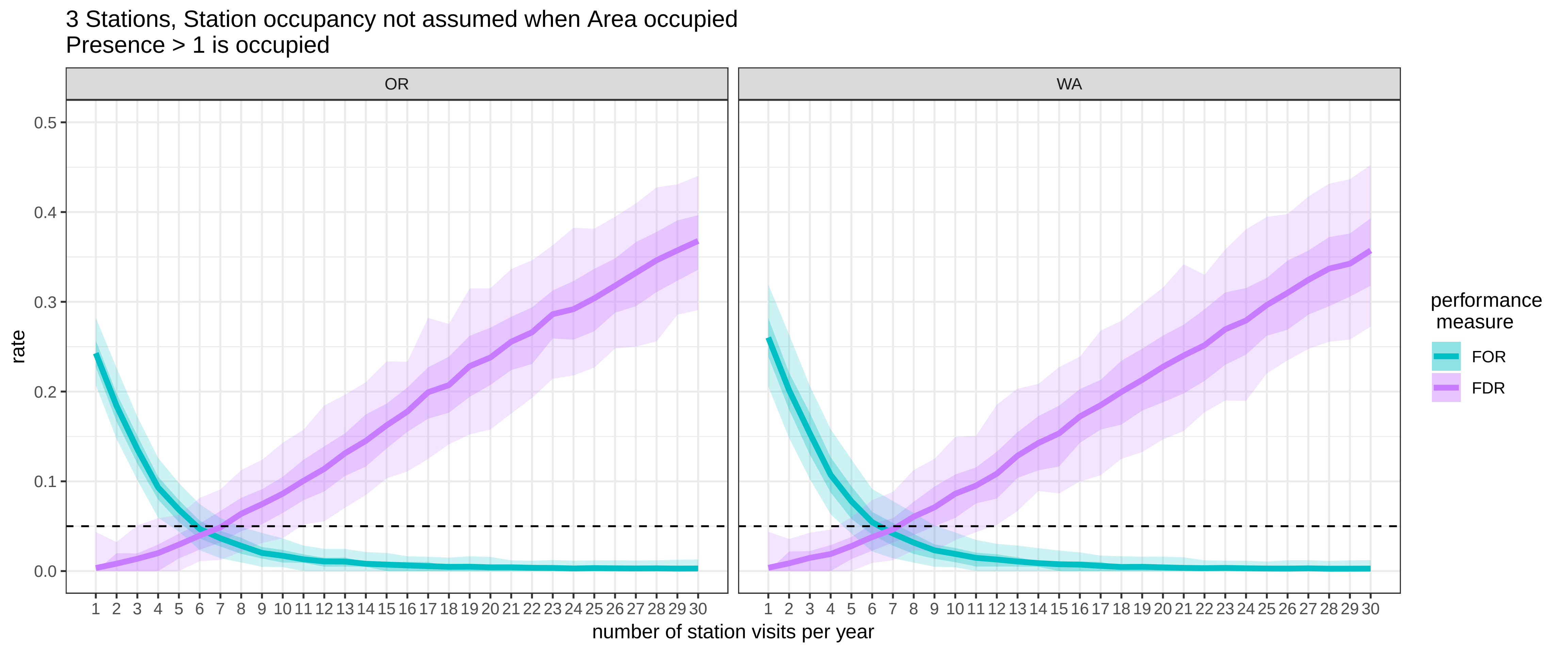
Below are figures containing simulation results for FOR and FPR separated by state.

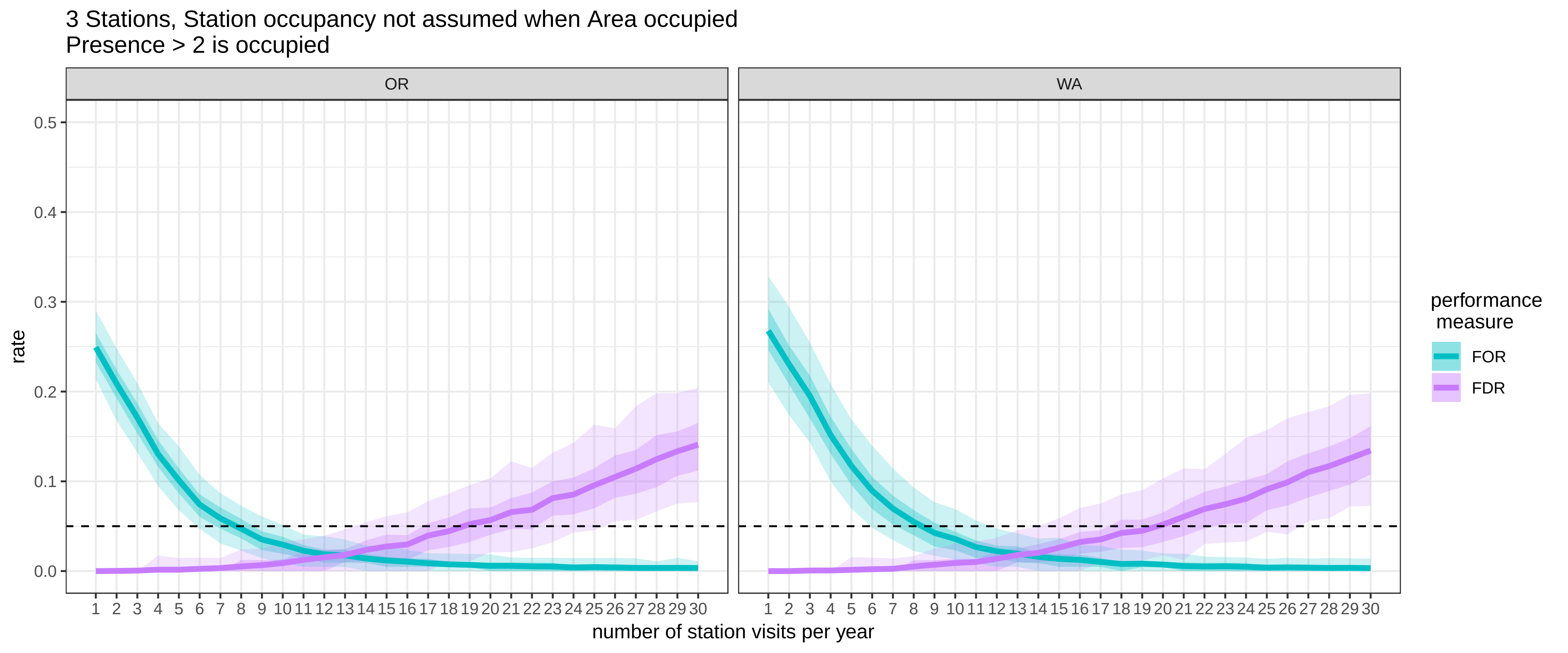


3 Stations, Station occupancy not assumed when Area occupied
Presence not used
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

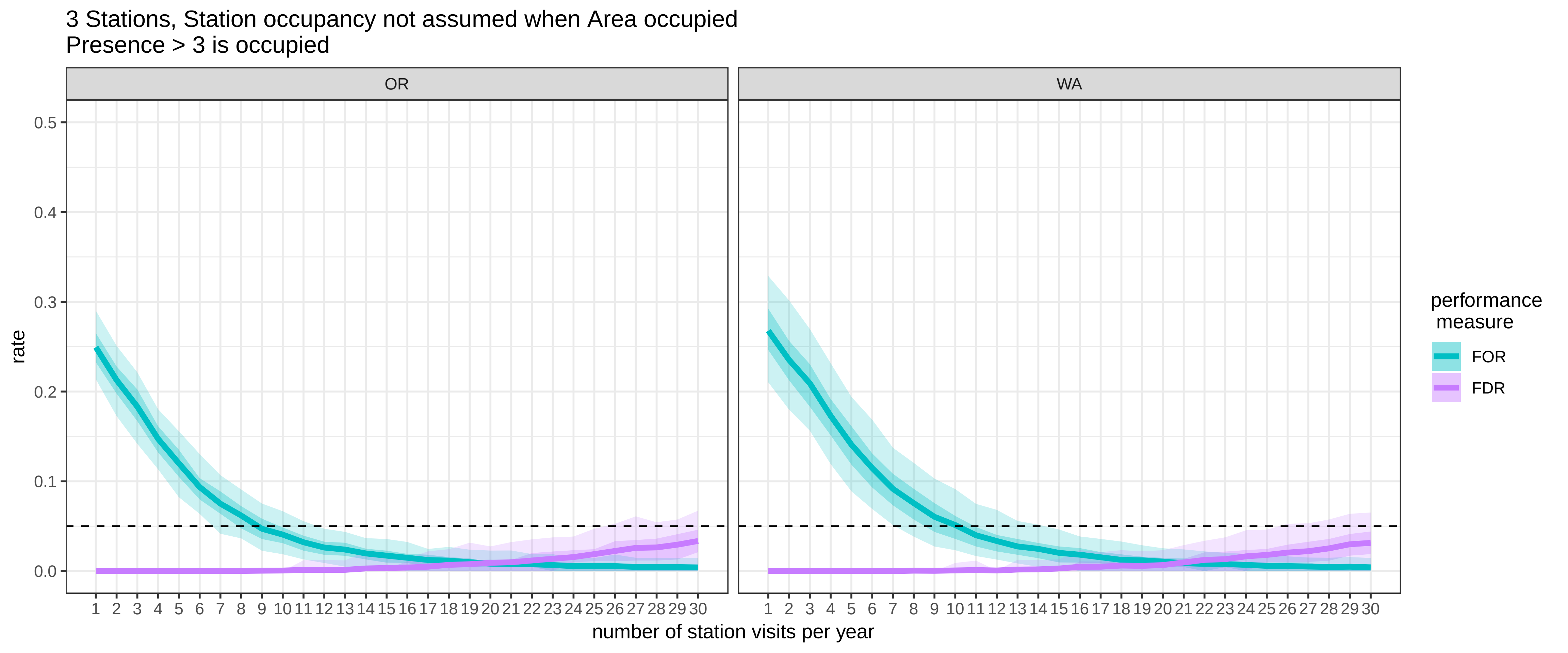


3 Stations, Station occupancy not assumed when Area occupied
Presence > 0 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

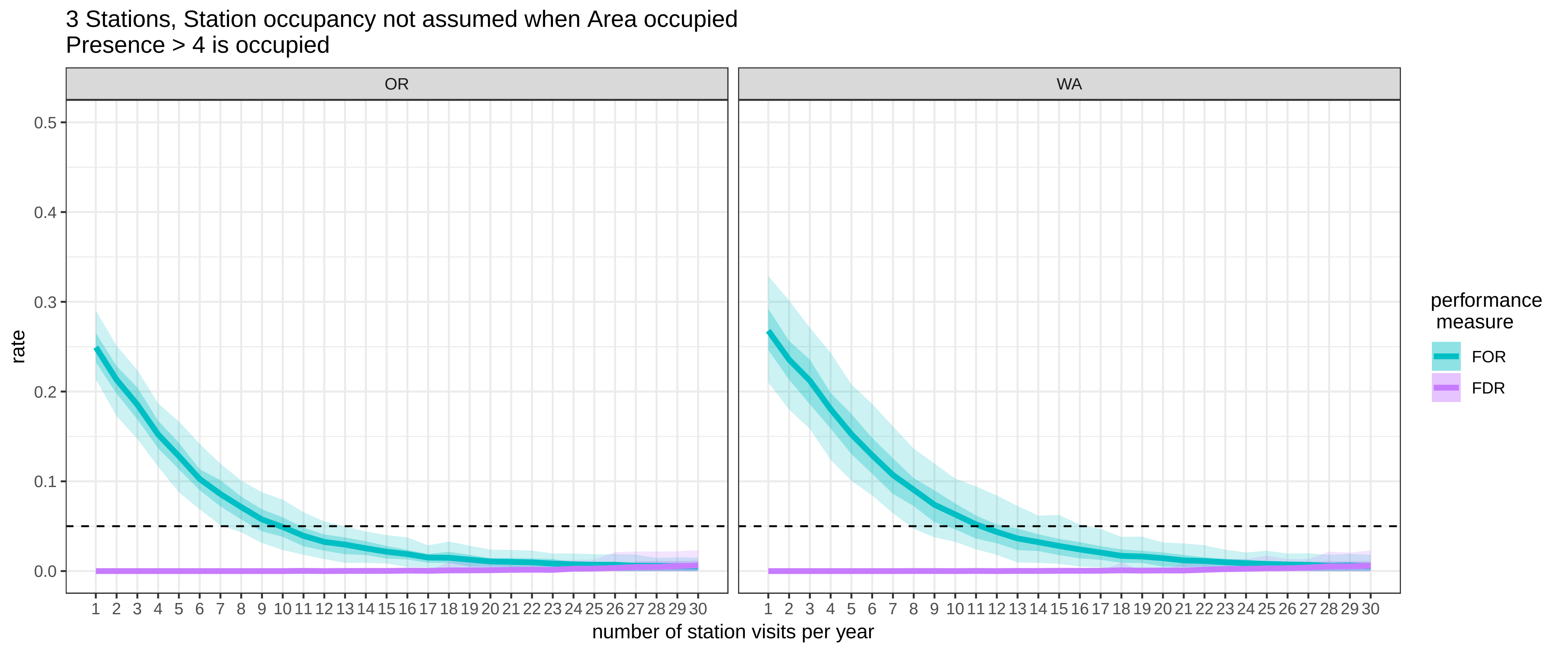

3 Stations, Station occupancy not assumed when Area occupied
Presence > 1 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
number of station visits per year
performance measure
FOR
FDR



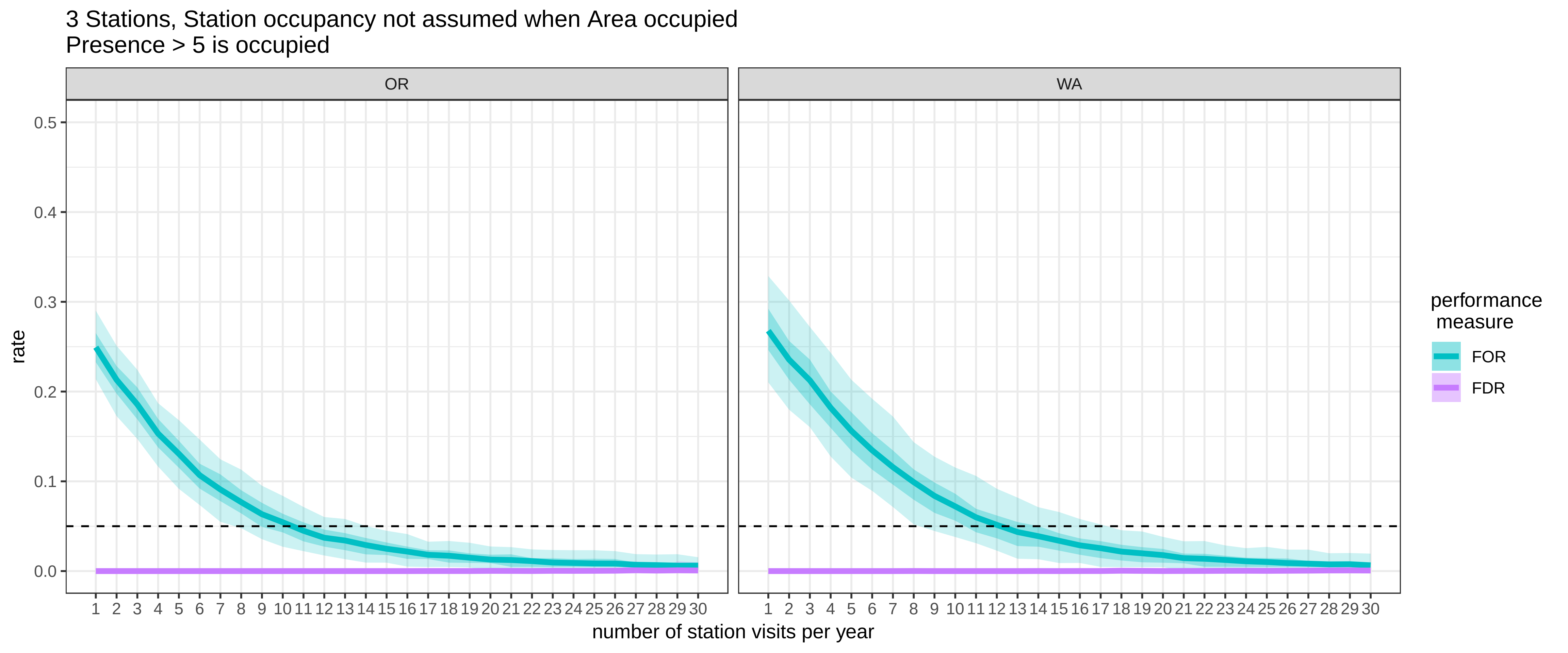
3 Stations, Station occupancy not assumed when Area occupied
Presence > 2 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

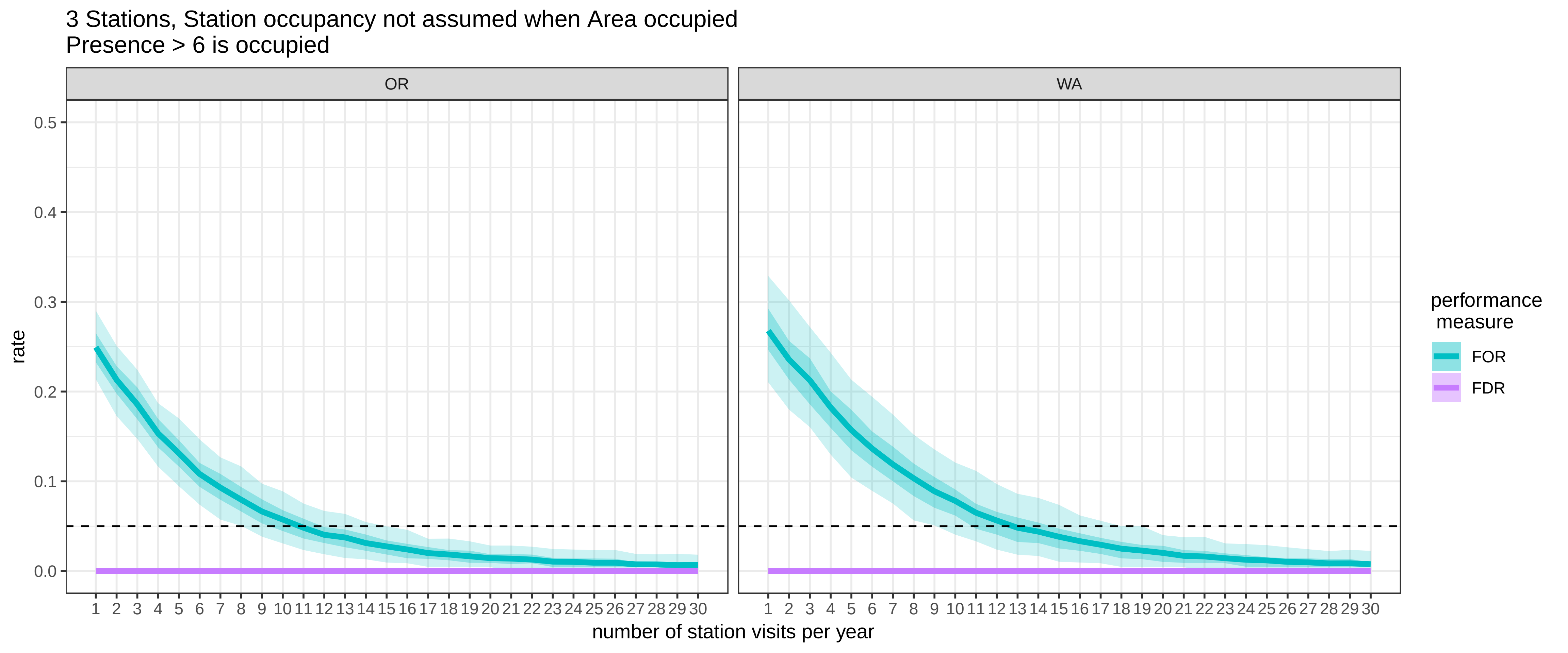


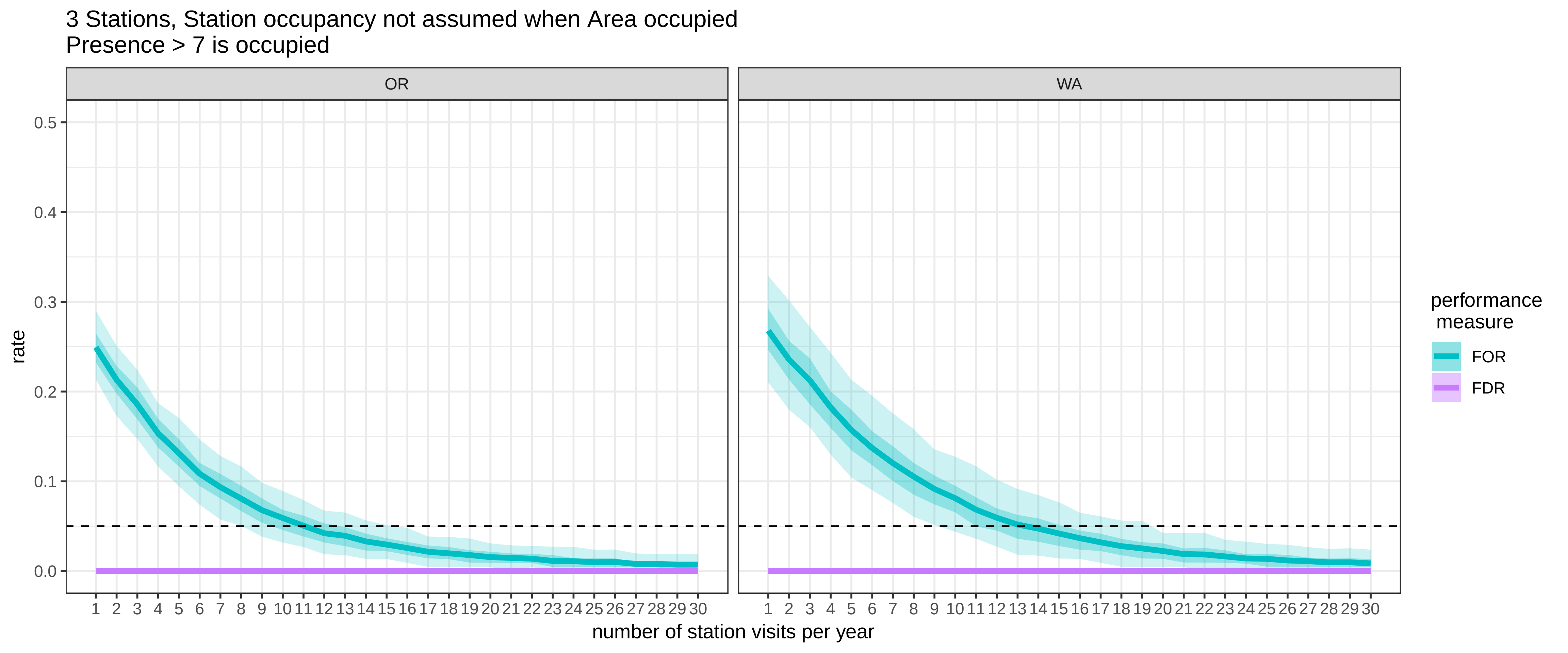
3 Stations, Station occupancy not assumed when Area occupied
Presence > 3 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

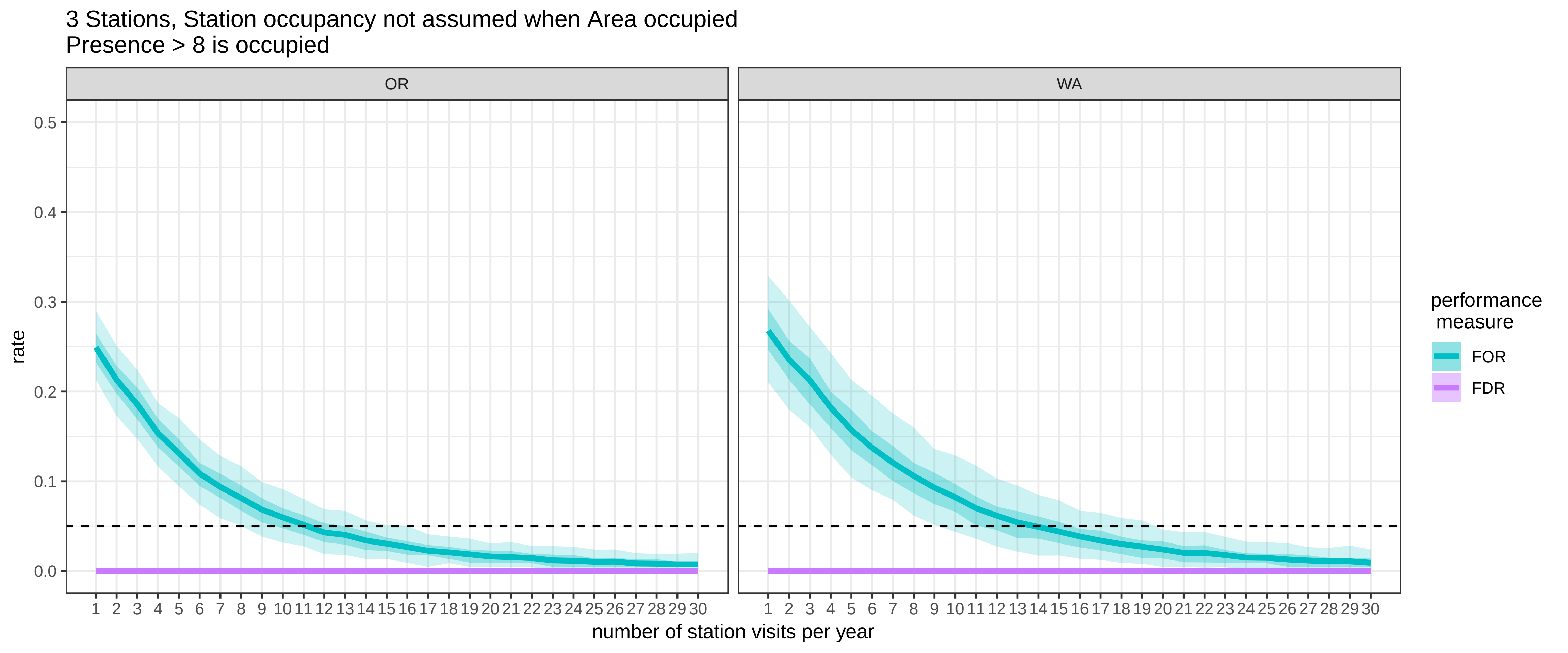


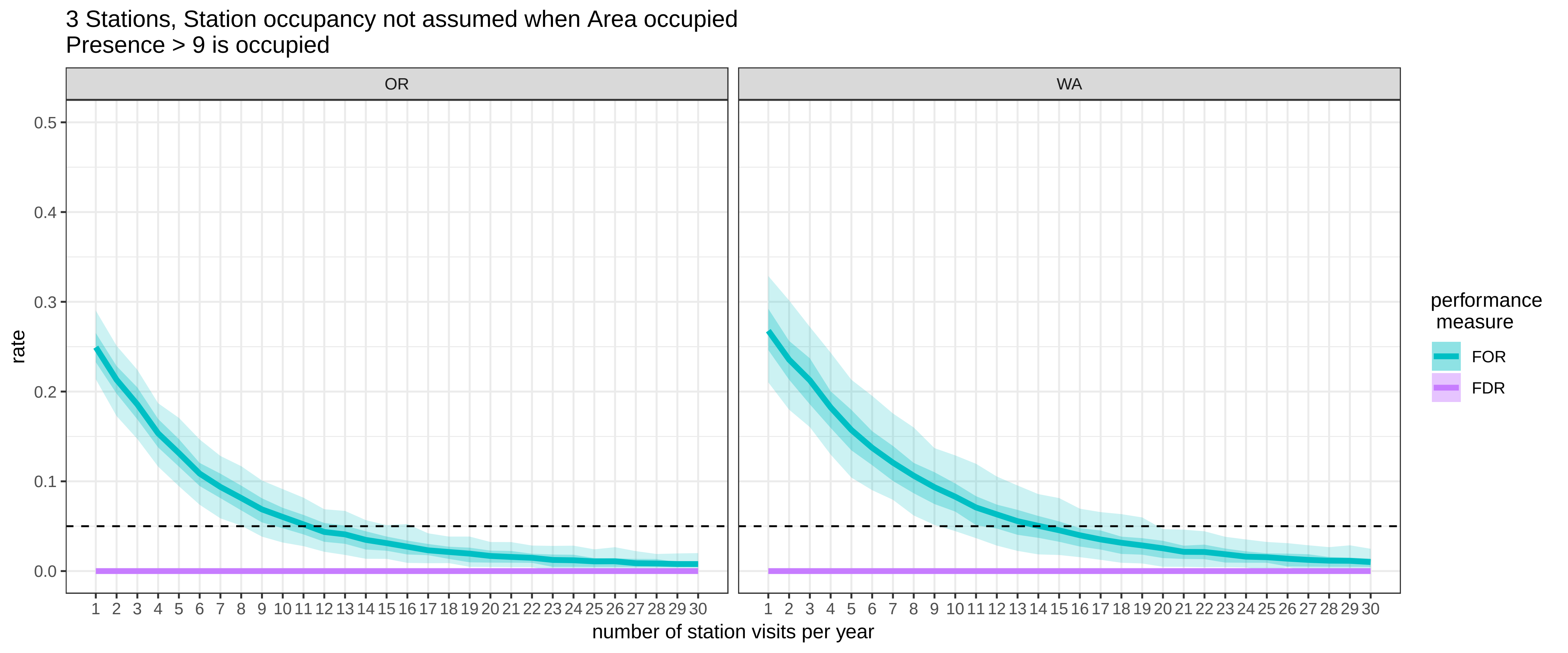
3 Stations, Station occupancy not assumed when Area occupied
Presence > 4 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

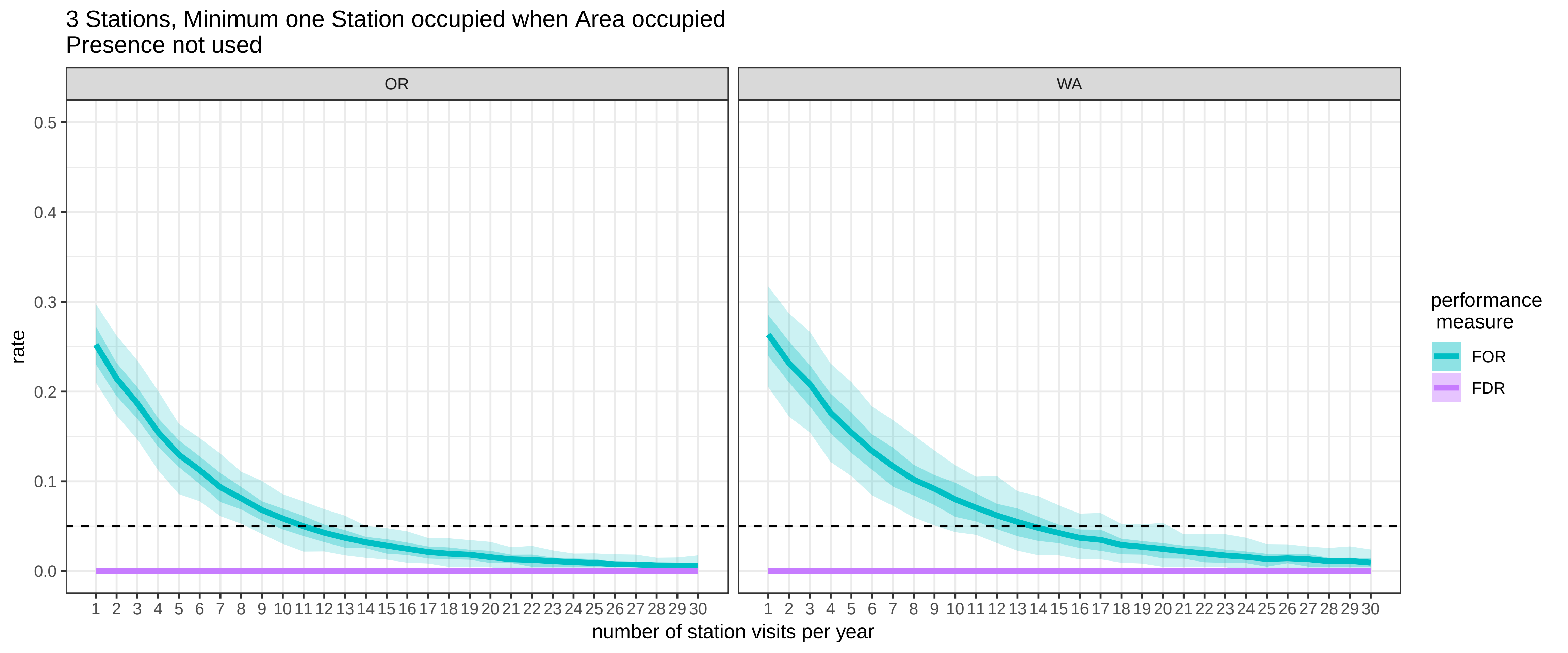

3 Stations, Station occupancy not assumed when Area occupied
Presence > 5 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

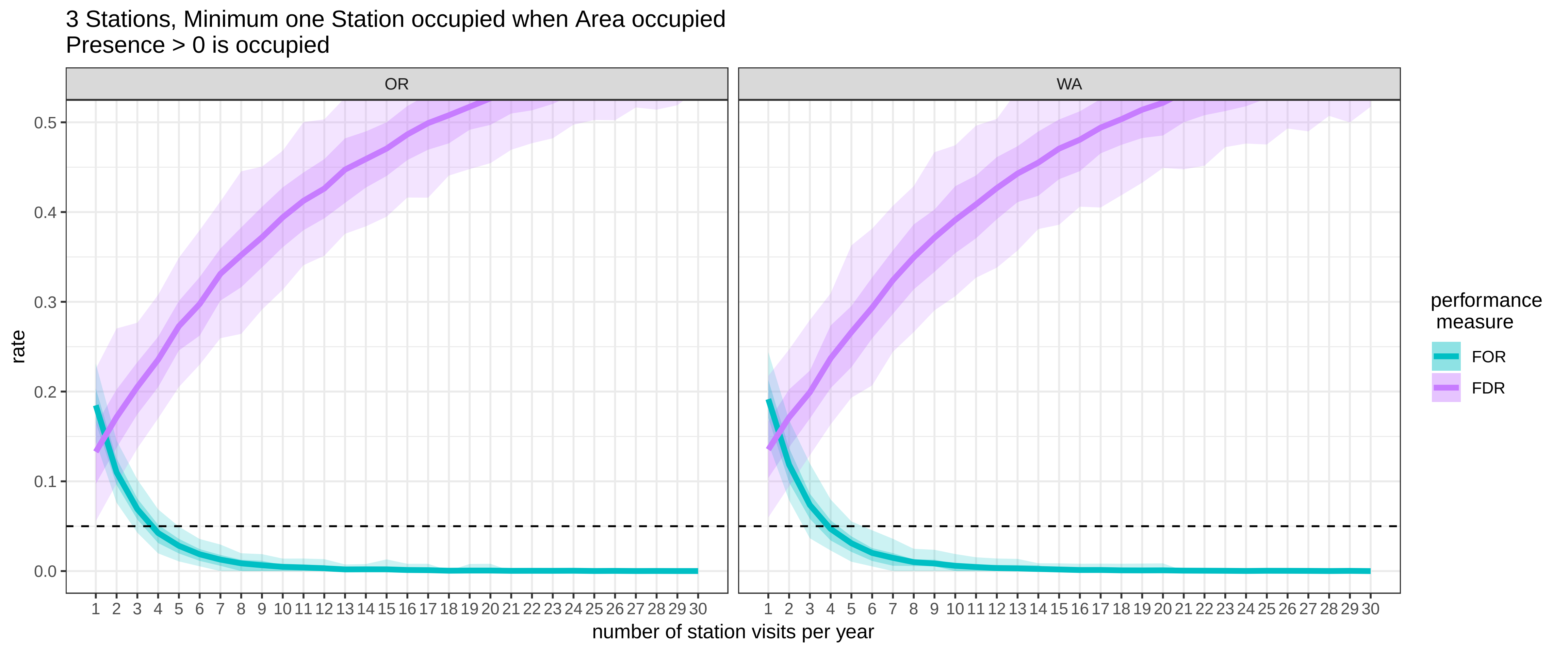

3 Stations, Station occupancy not assumed when Area occupied
Presence > 6 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR


3 Stations, Station occupancy not assumed when Area occupied
Presence > 7 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

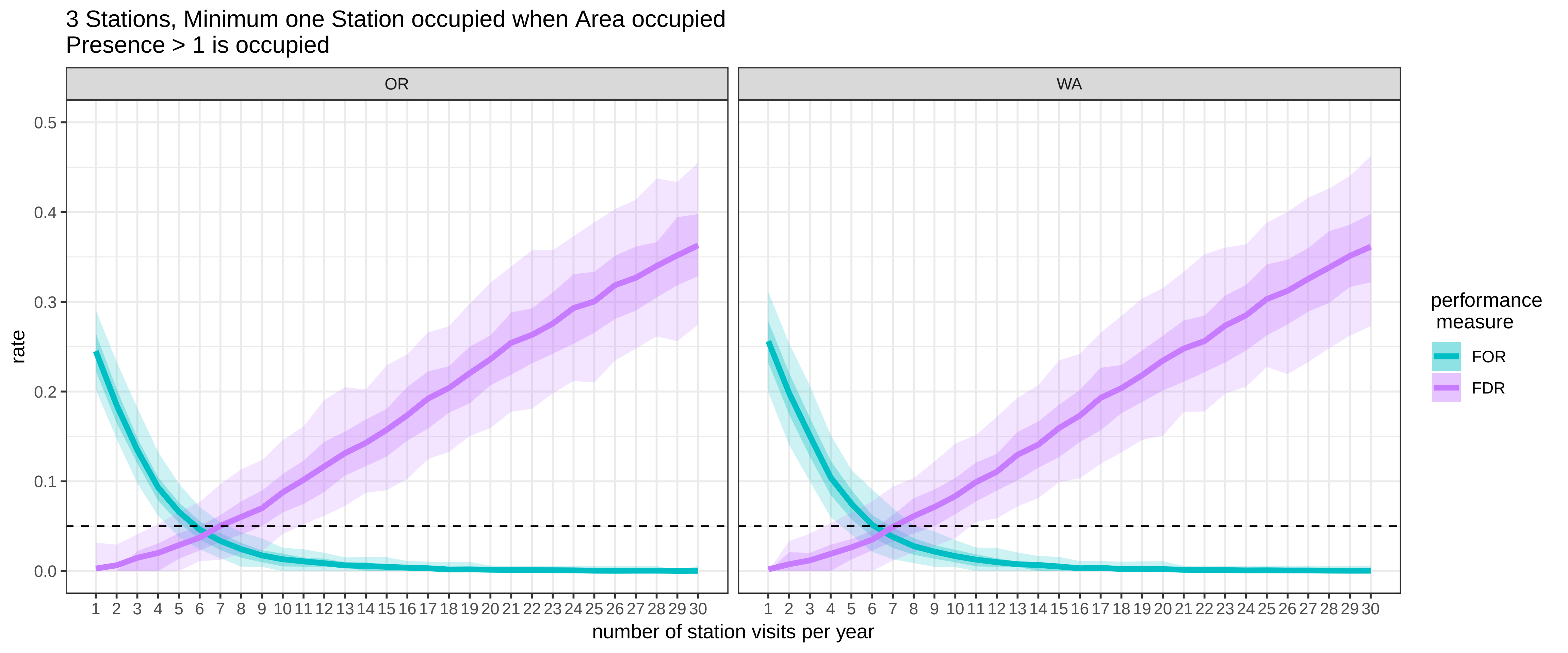

3 Stations, Station occupancy not assumed when Area occupied
Presence > 8 is occupied
OR
WA
0.5
0.4
0.3
0.2
0.1
0.0
rate
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

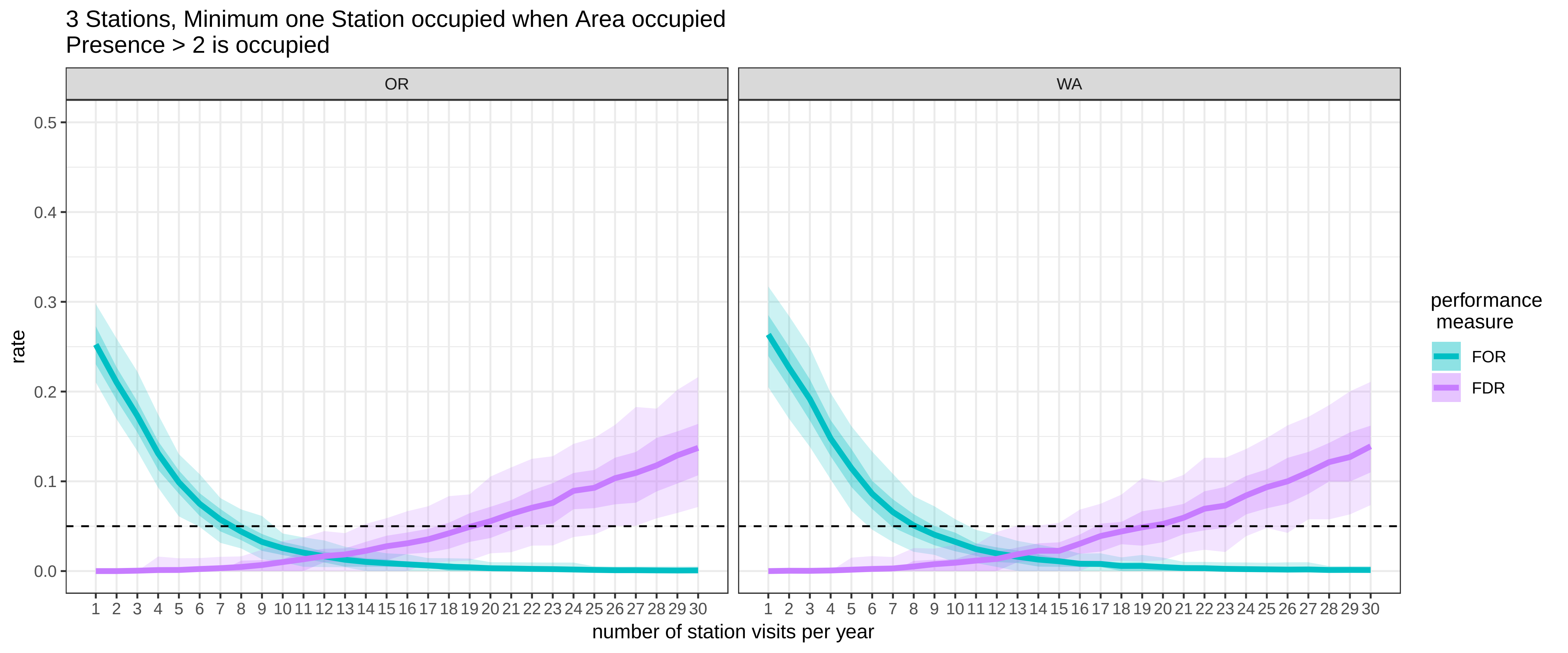

3 Stations, Station occupancy not assumed when Area occupied
Presence > 9 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR


3 Stations, Minimum one Station occupied when Area occupied
Presence not used
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

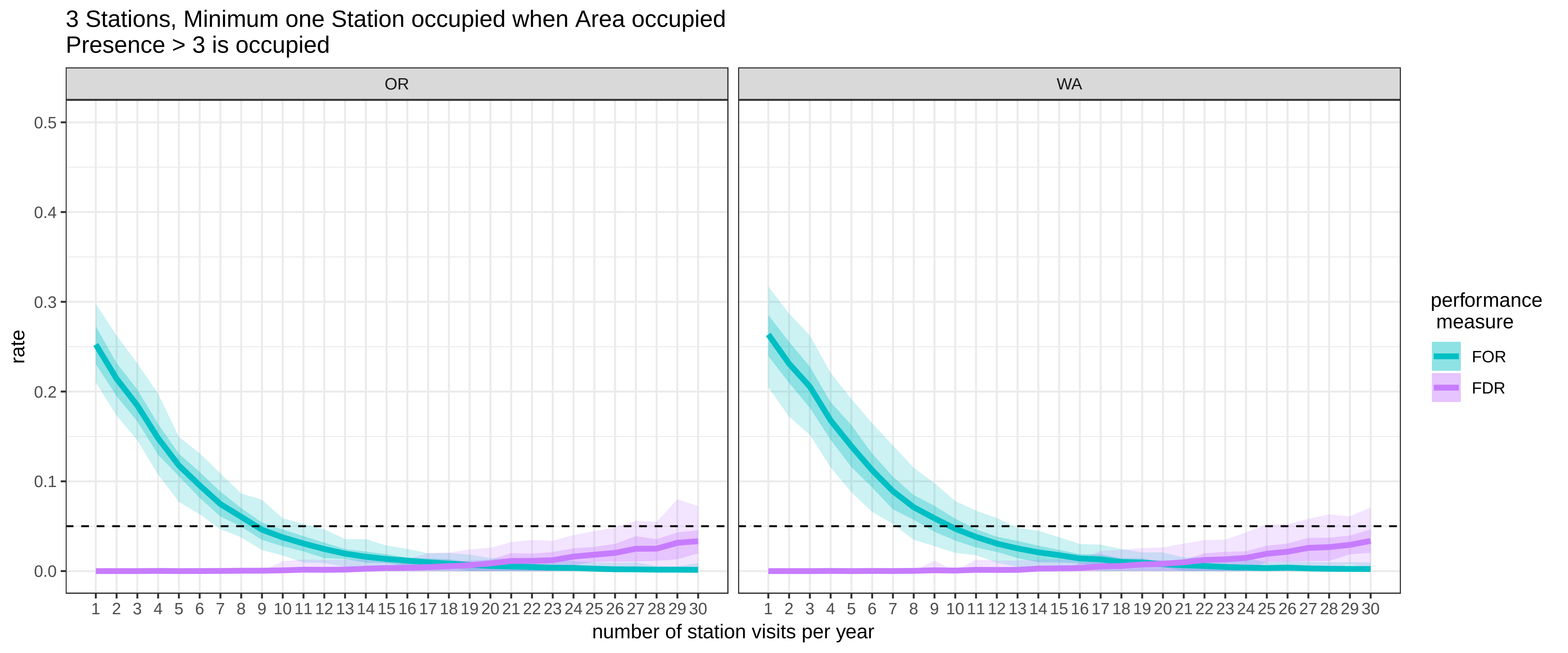


3 Stations, Minimum one Station occupied when Area occupied
Presence > 0 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

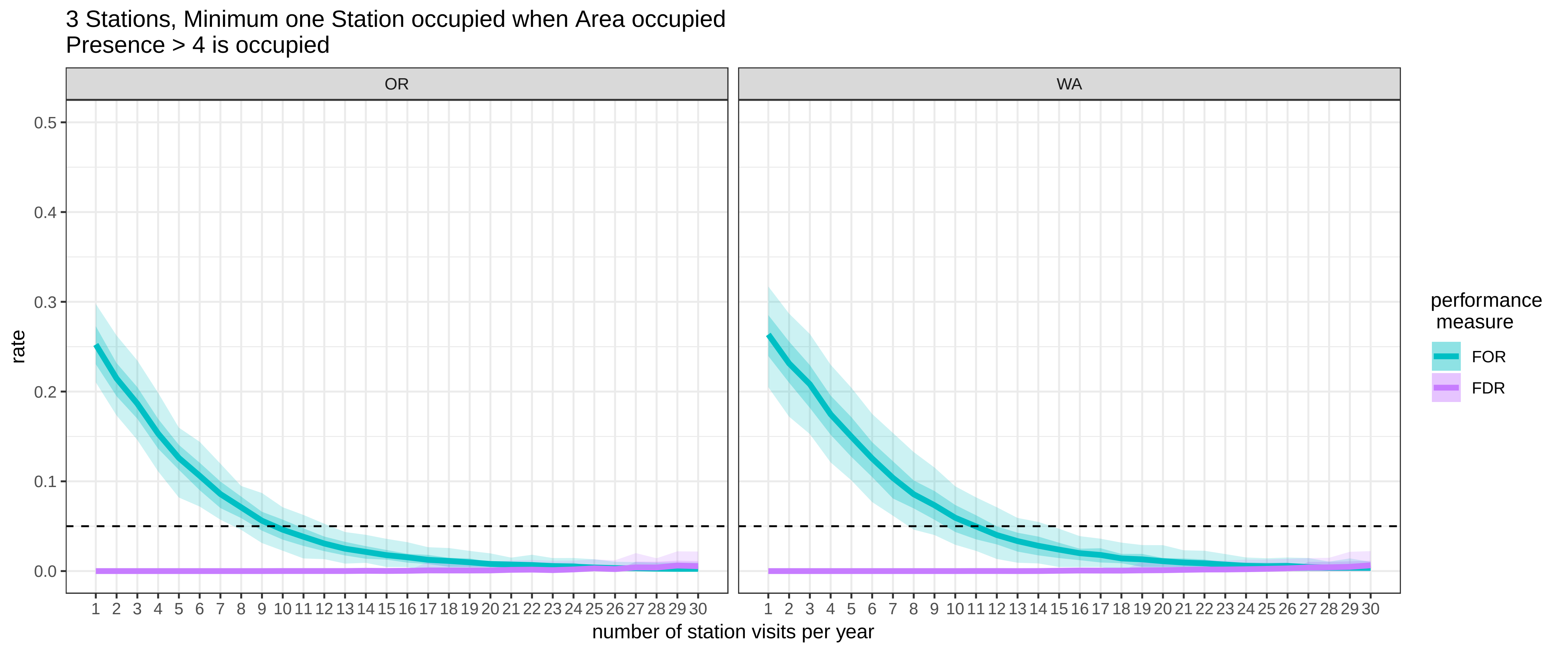

3 Stations, Minimum one Station occupied when Area occupied
Presence > 1 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

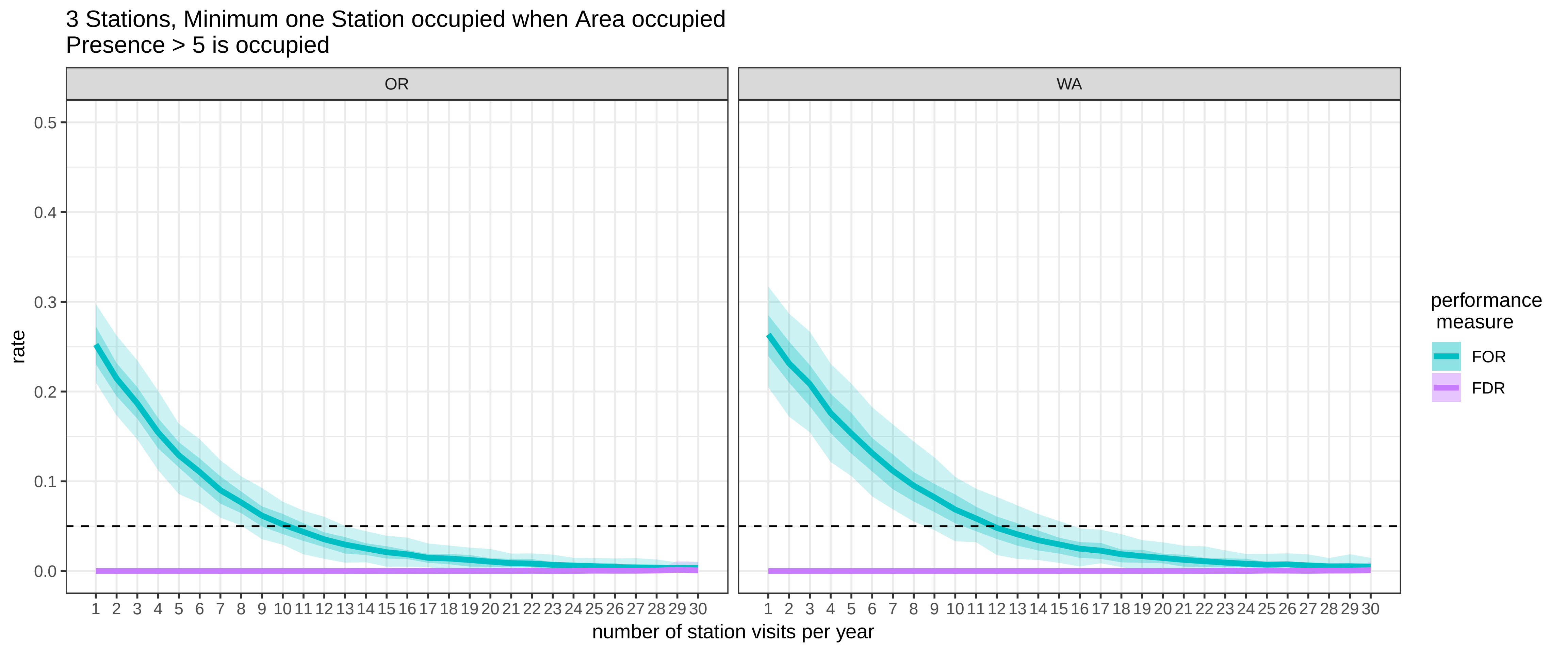


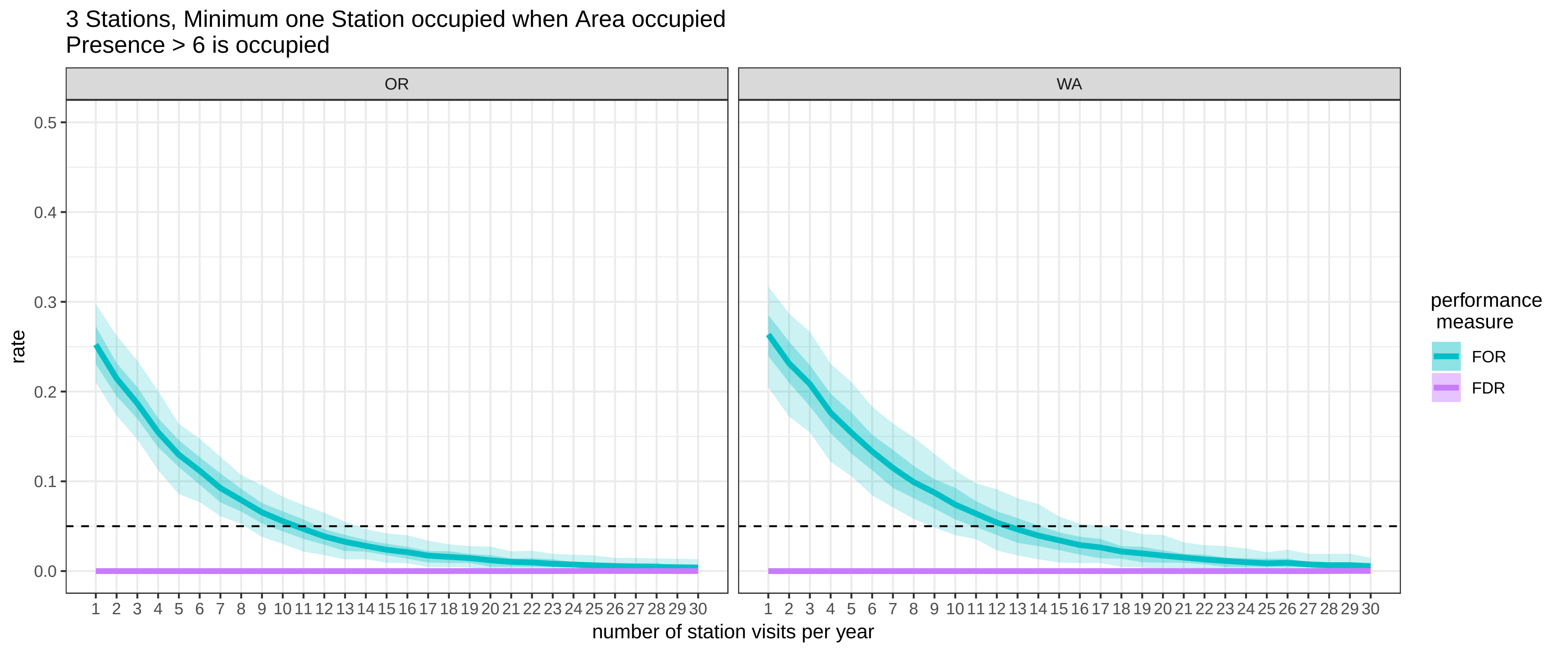
3 Stations, Minimum one Station occupied when Area occupied
Presence > 2 is occupied
OR
WA
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR



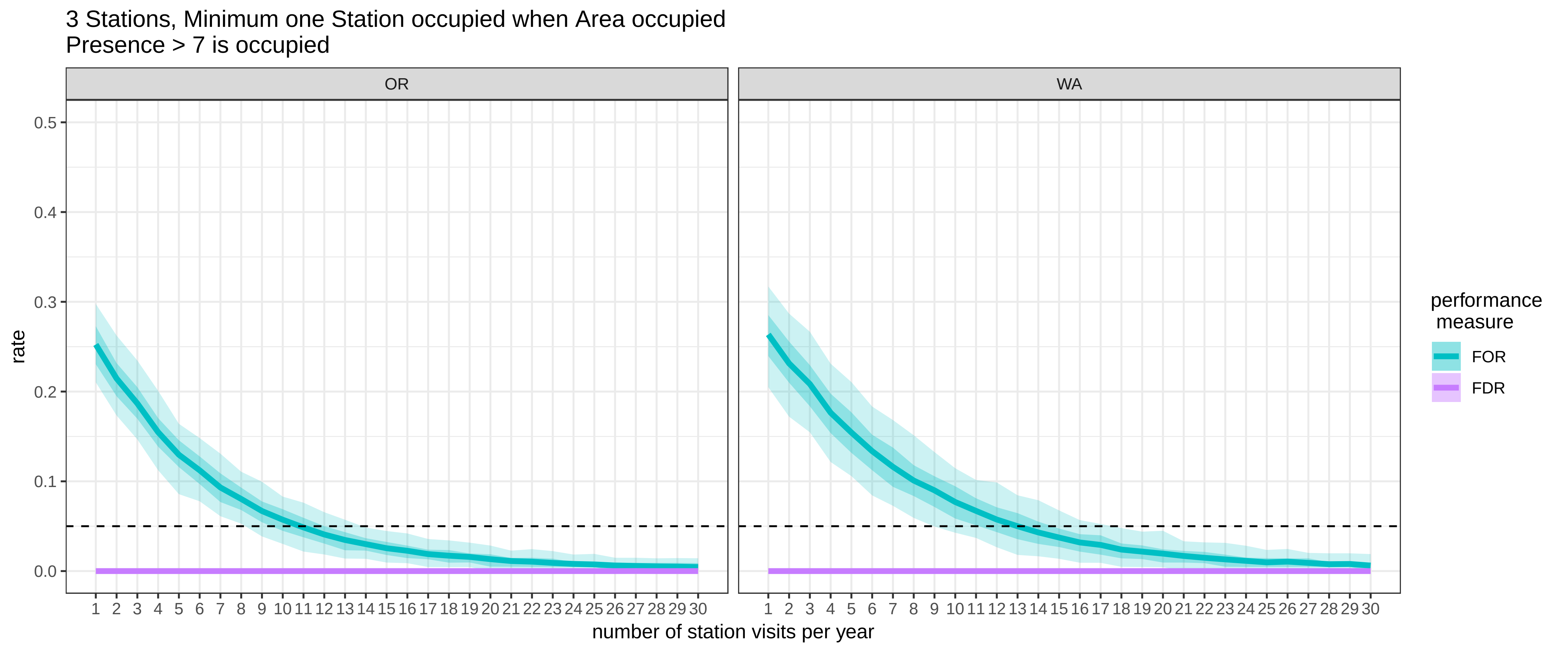
3 Stations, Minimum one Station occupied when Area occupied
Presence > 3 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

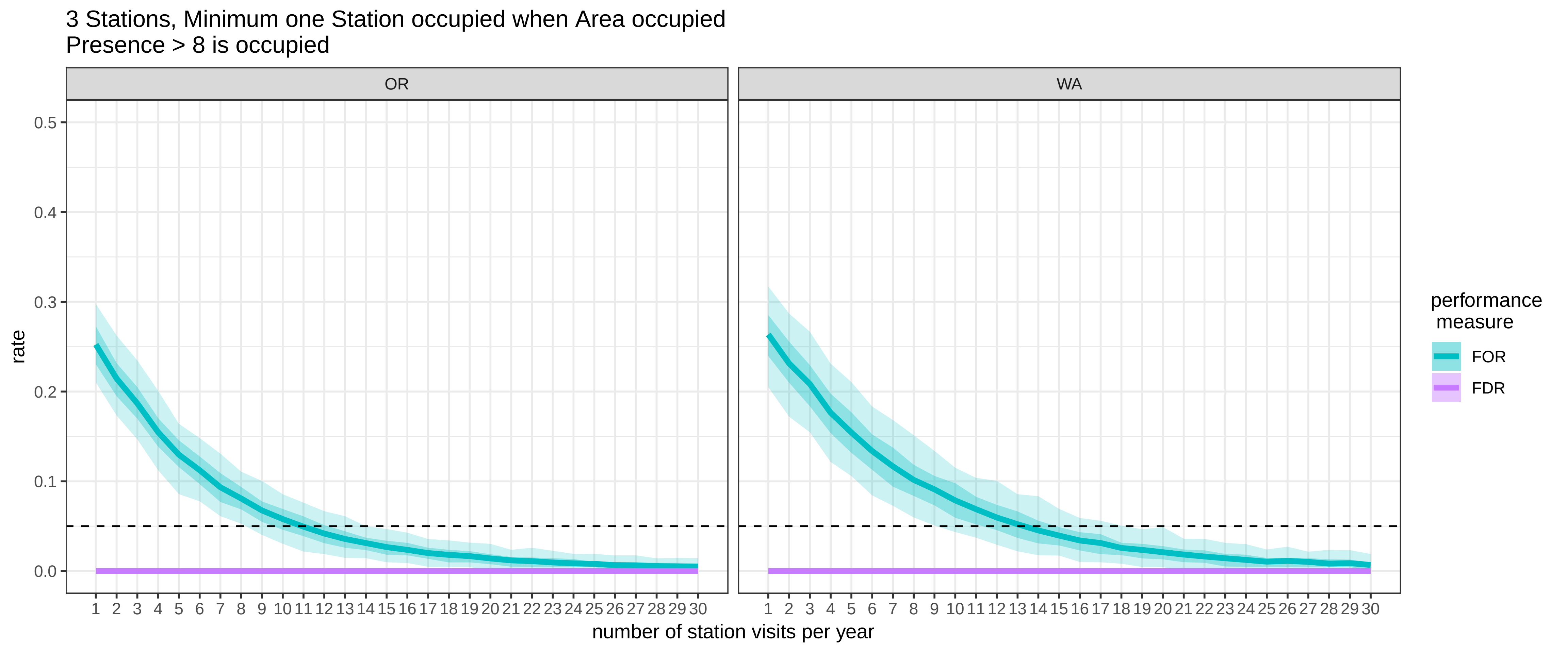

3 Stations, Minimum one Station occupied when Area occupied
Presence > 4 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

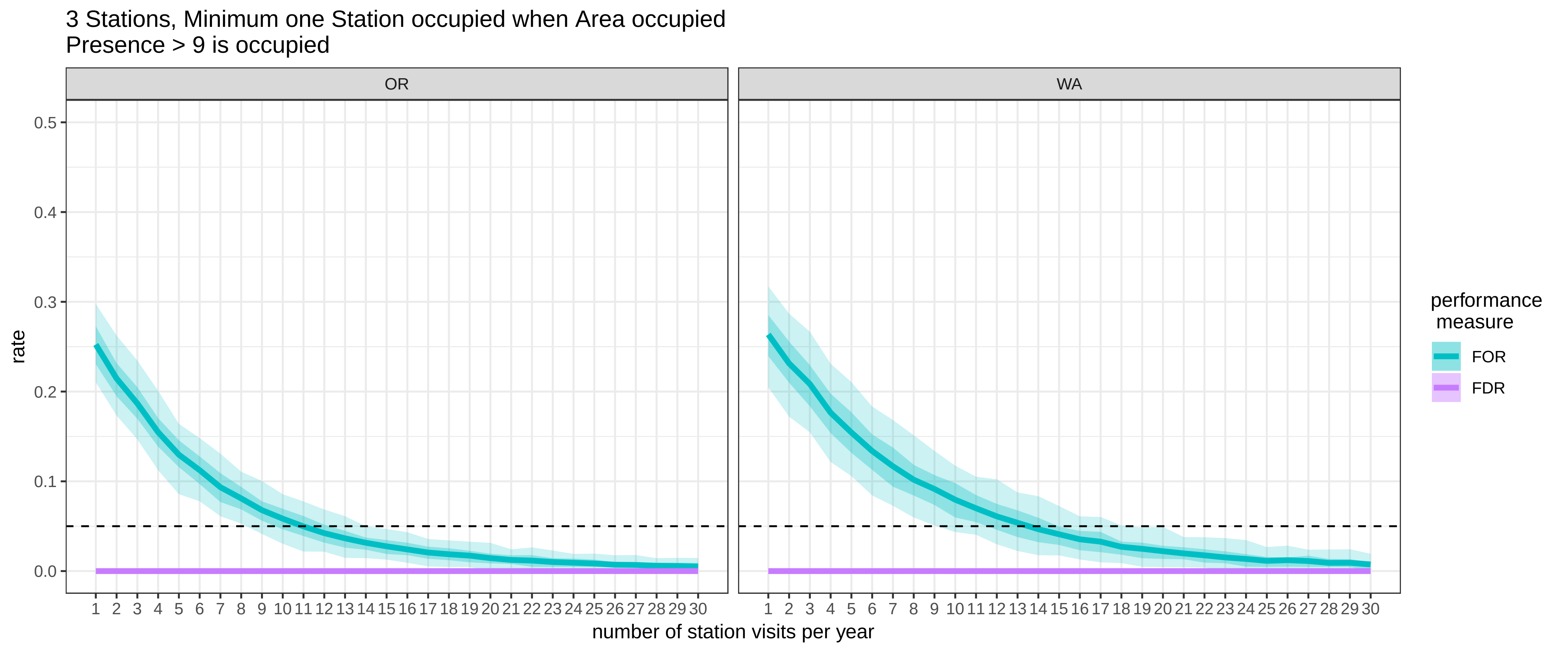

3 Stations, Minimum one Station occupied when Area occupied
Presence > 5 is occupied
OR
WA
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR



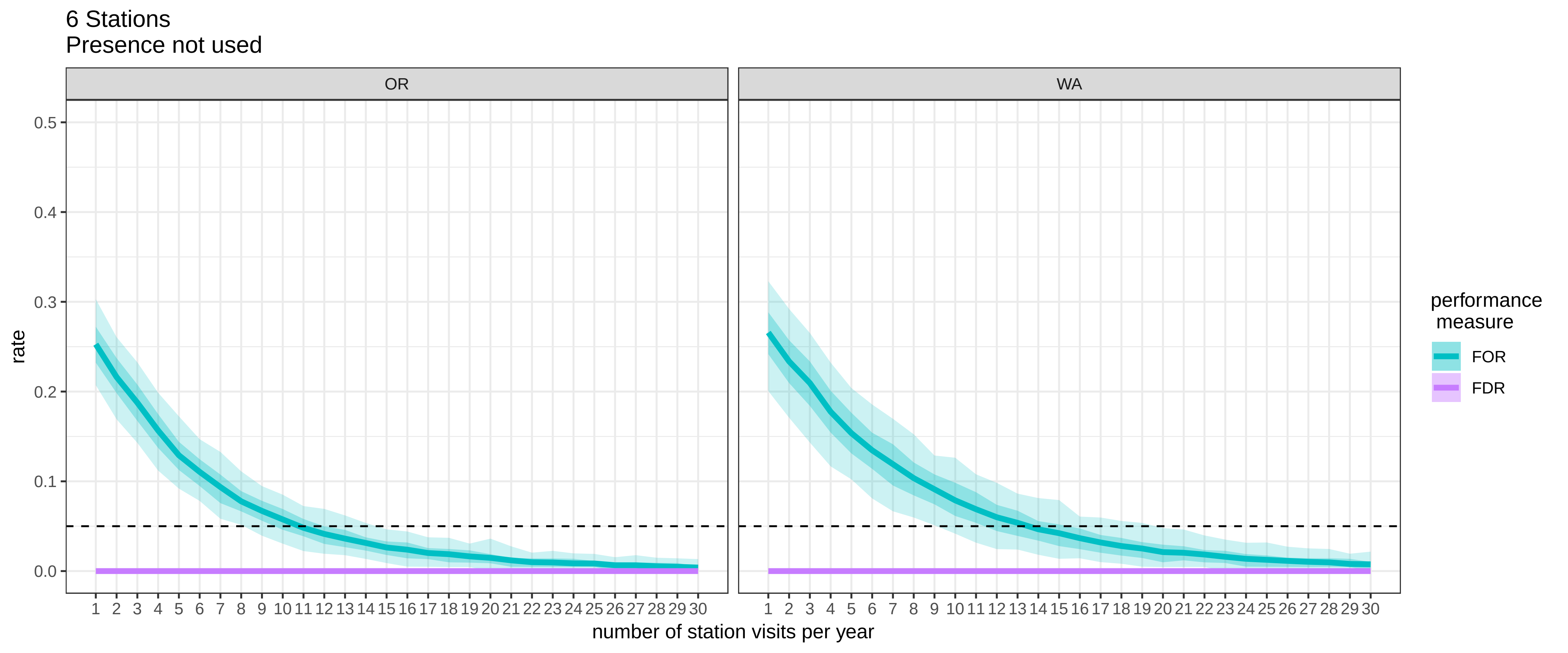
3 Stations, Minimum one Station occupied when Area occupied
Presence > 6 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR


3 Stations, Minimum one Station occupied when Area occupied
Presence > 7 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

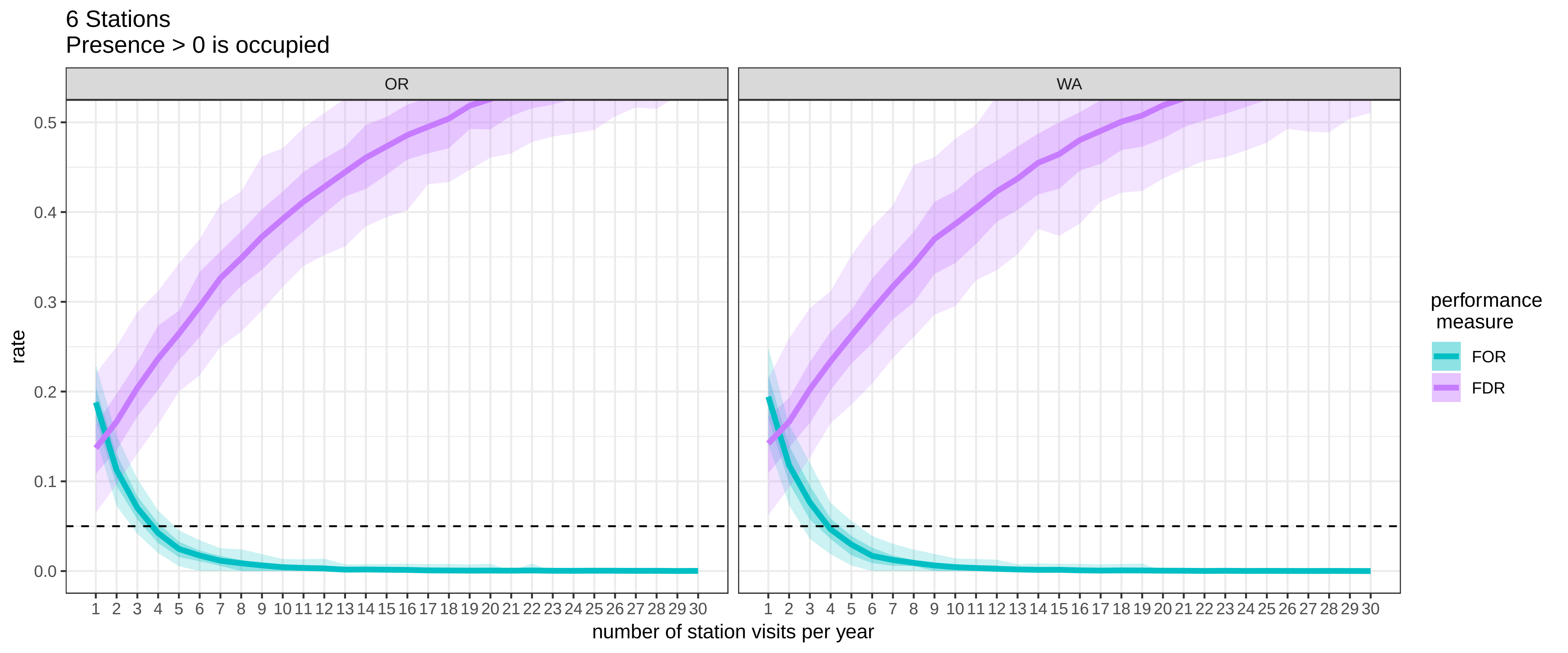

3 Stations, Minimum one Station occupied when Area occupied
Presence > 8 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

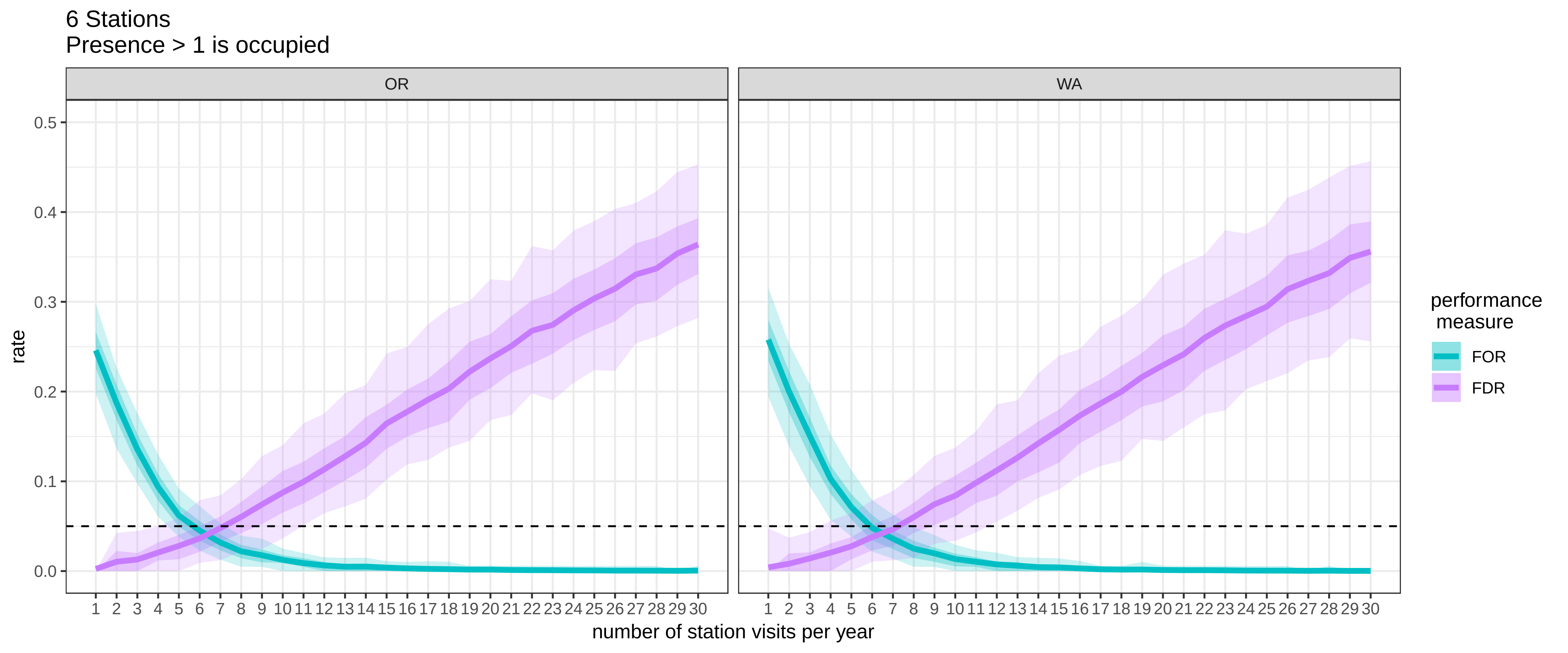


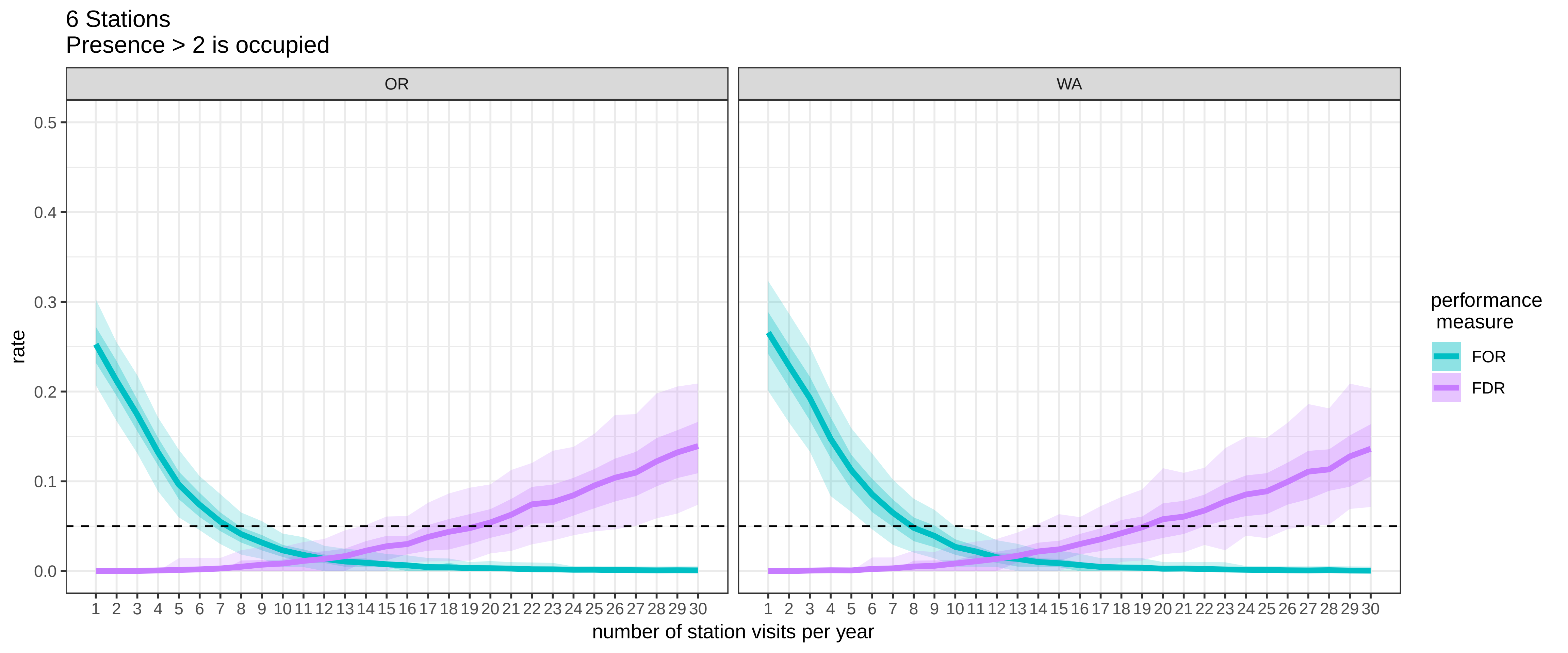
3 Stations, Minimum one Station occupied when Area occupied
Presence > 9 is occupied
OR
WA
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR



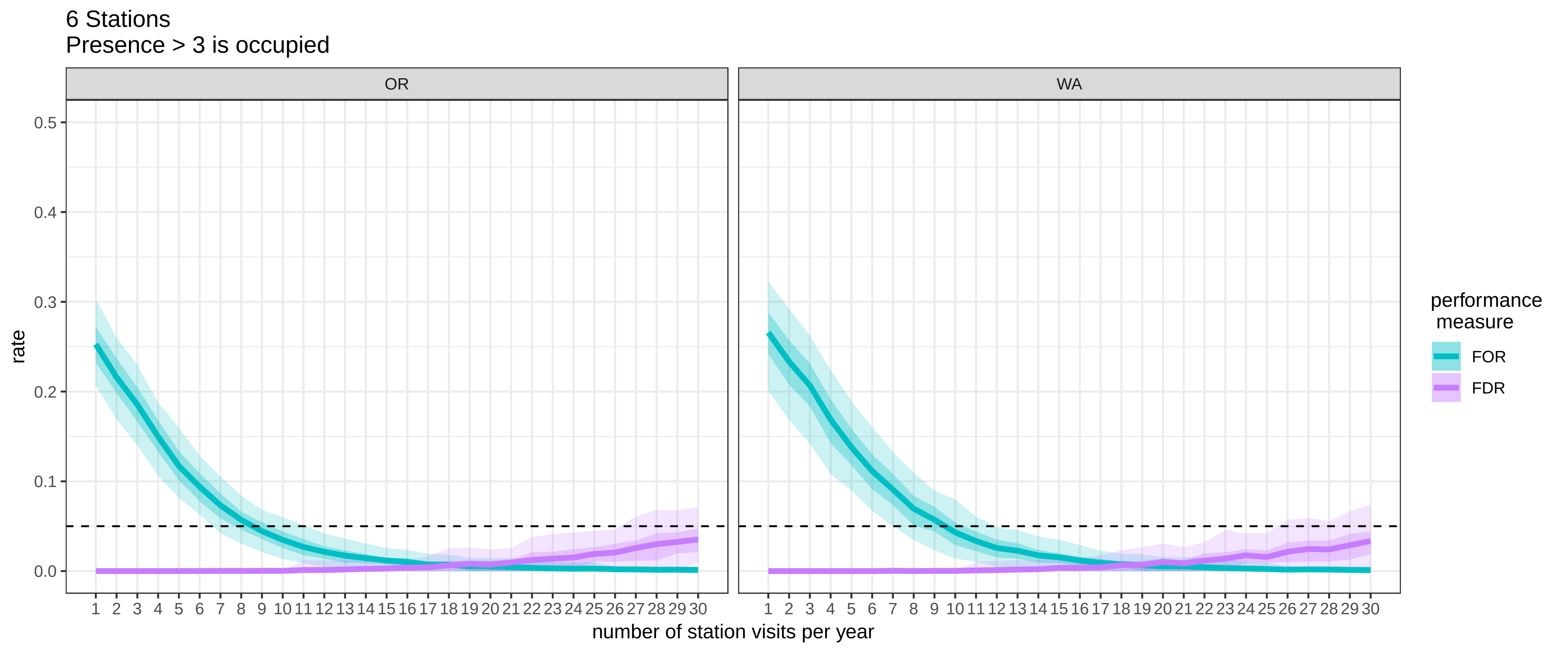
6 Stations
Presence not used
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR


6 Stations
Presence > 0 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

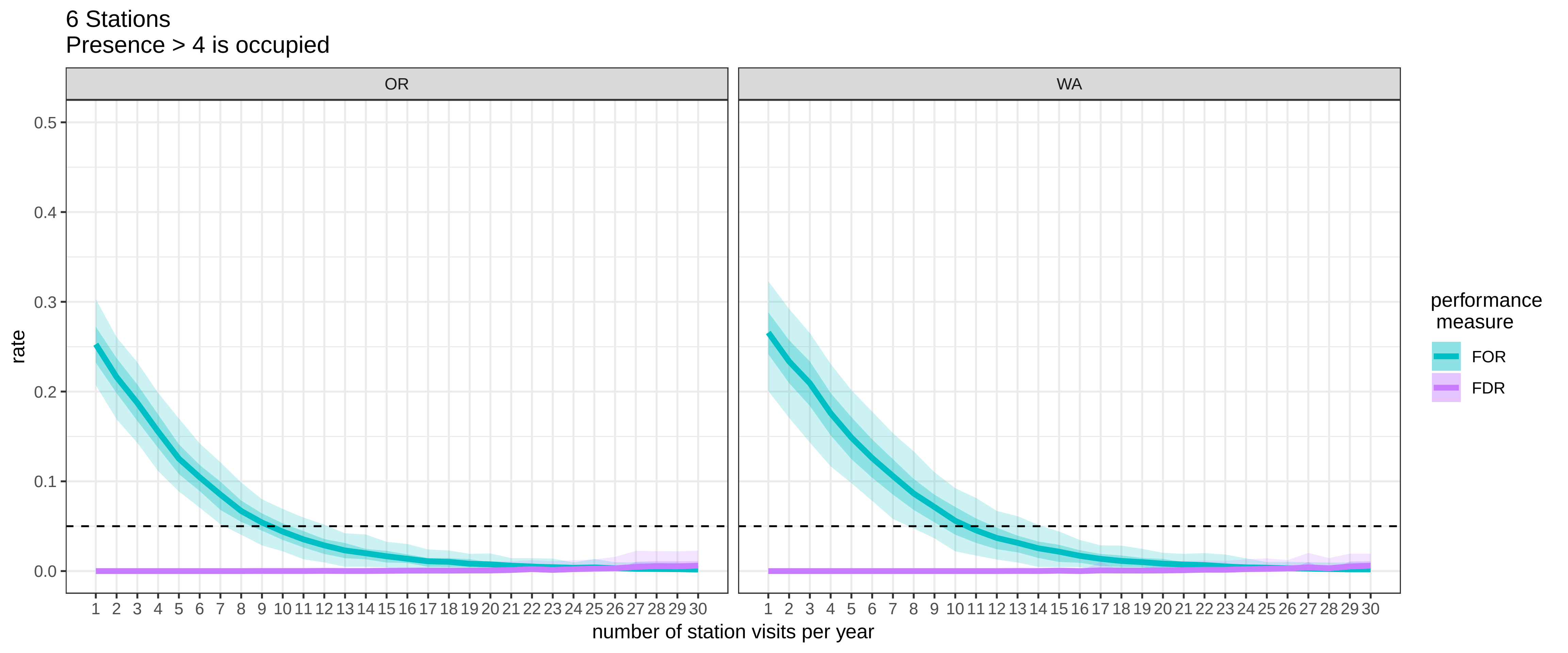

6 Stations
Presence > 1 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR



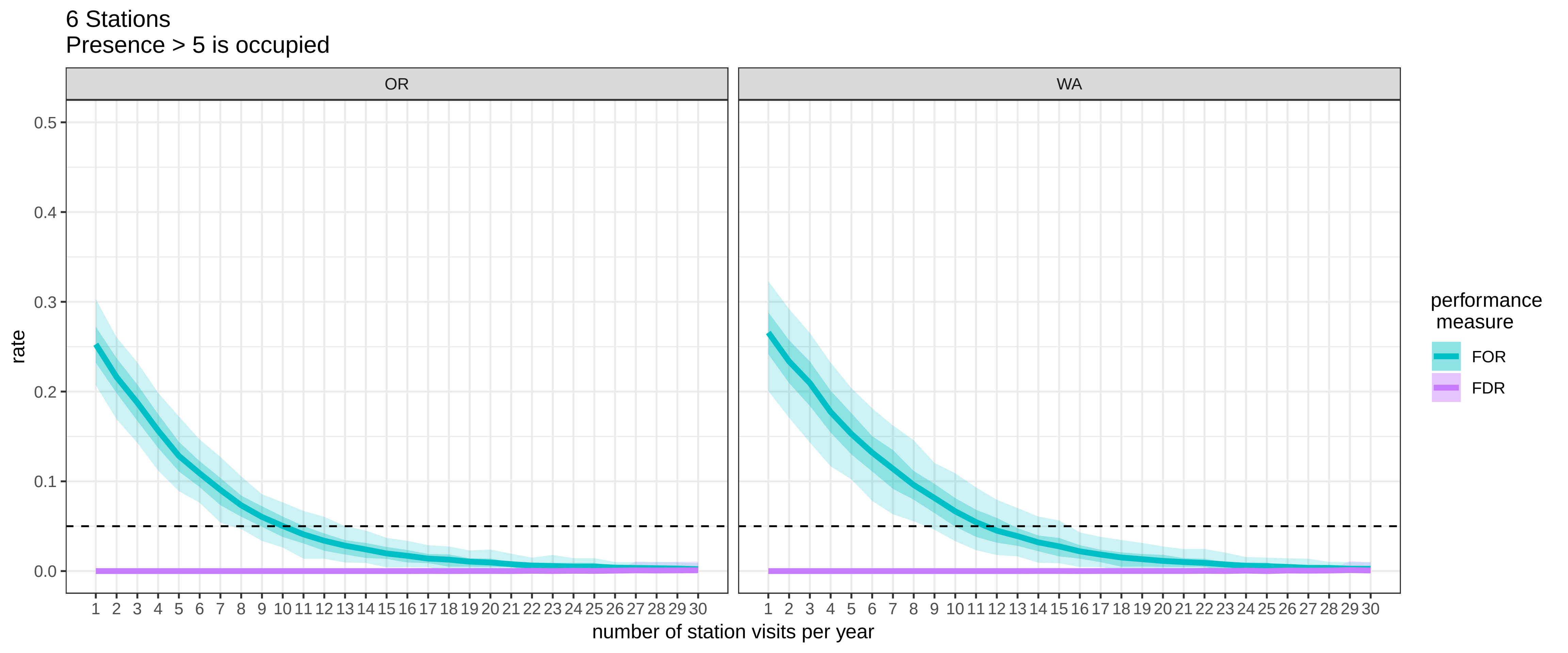
6 Stations
Presence > 2 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR



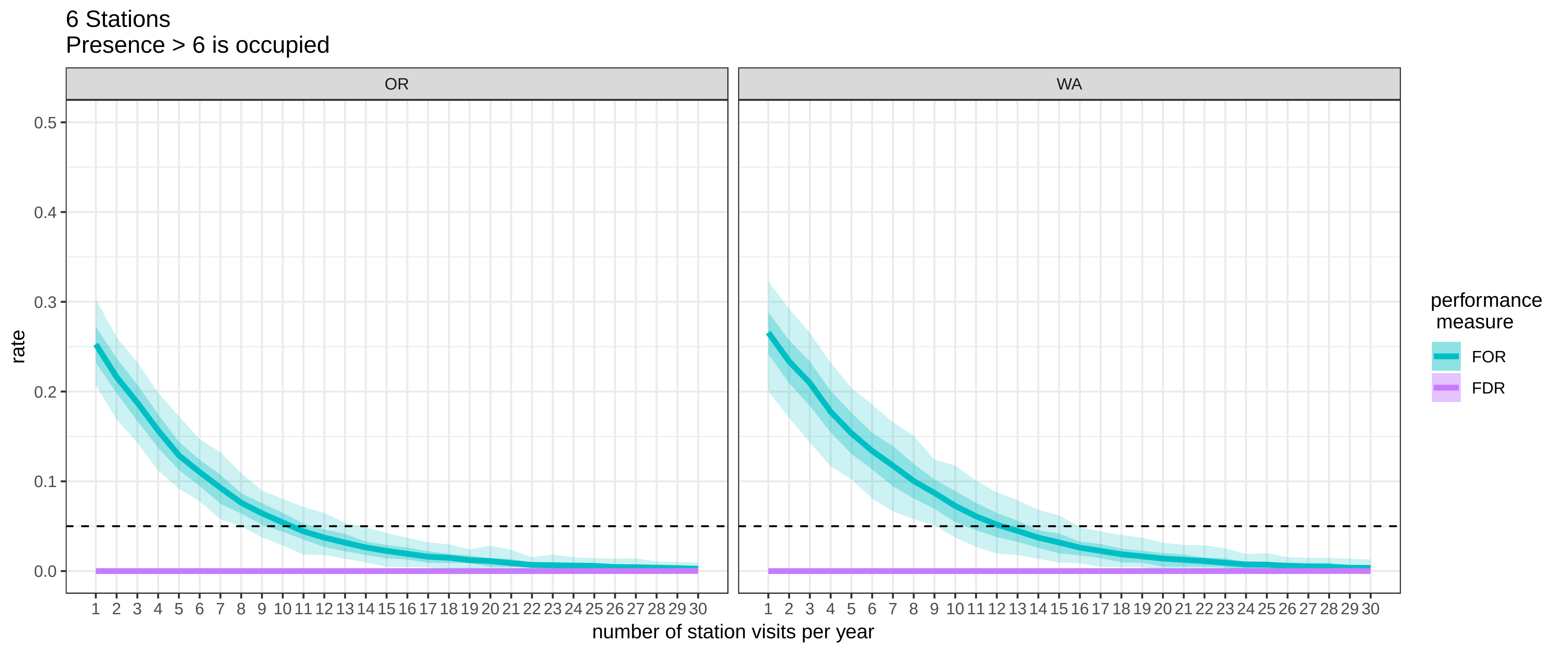
6 Stations
Presence > 3 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

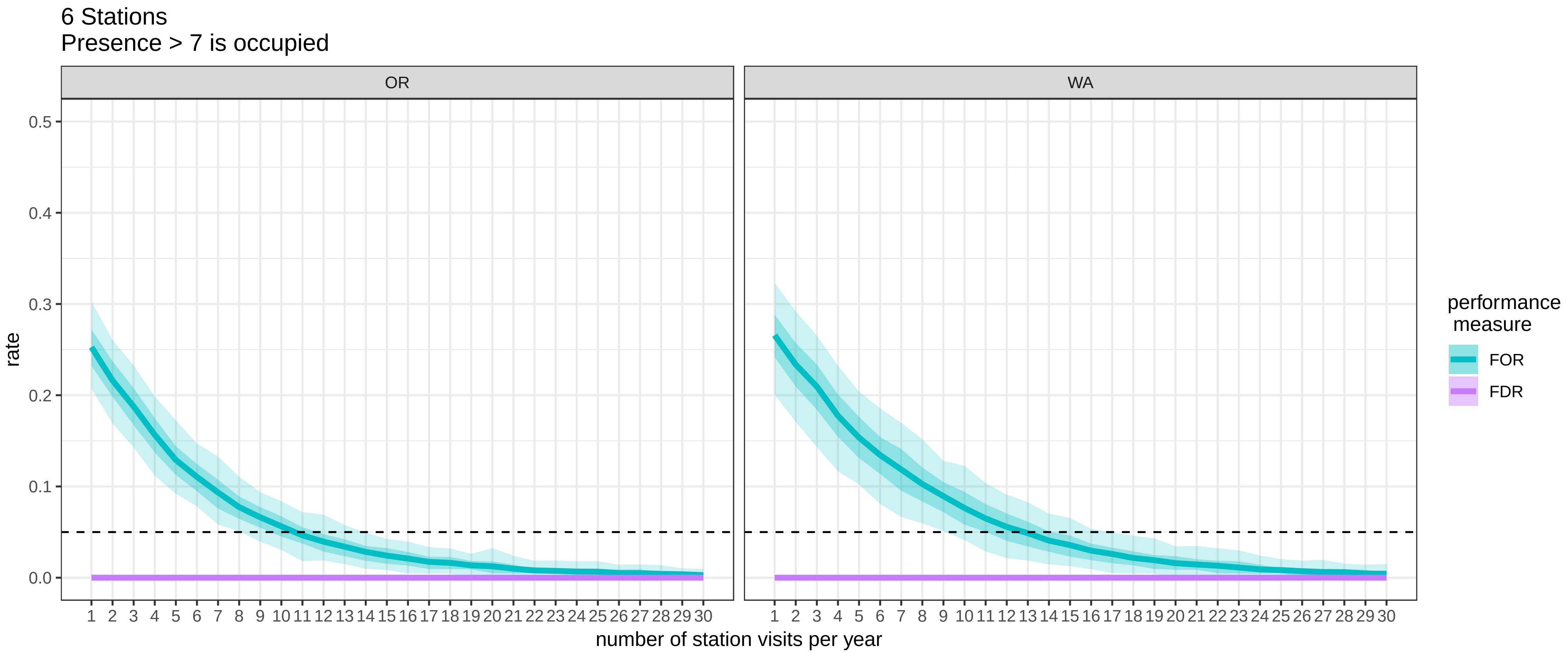


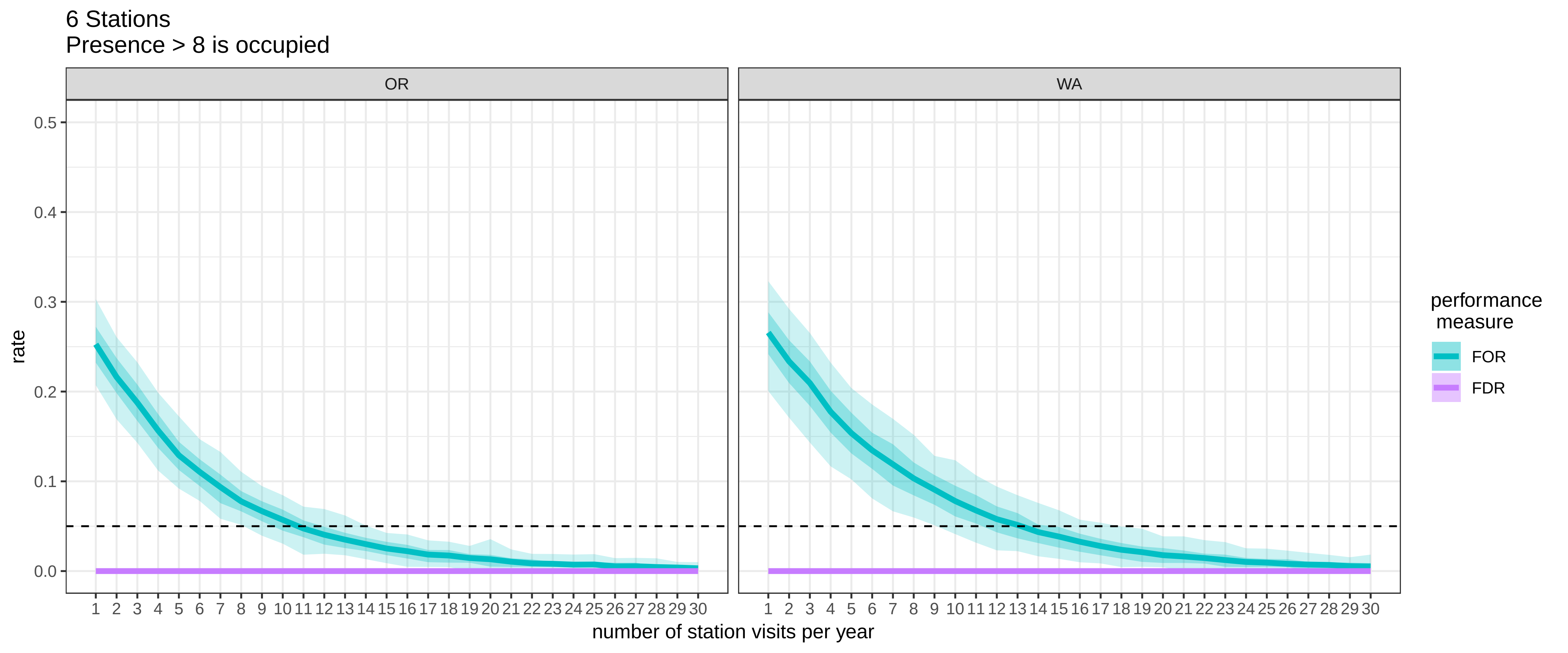
6 Stations
Presence > 4 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

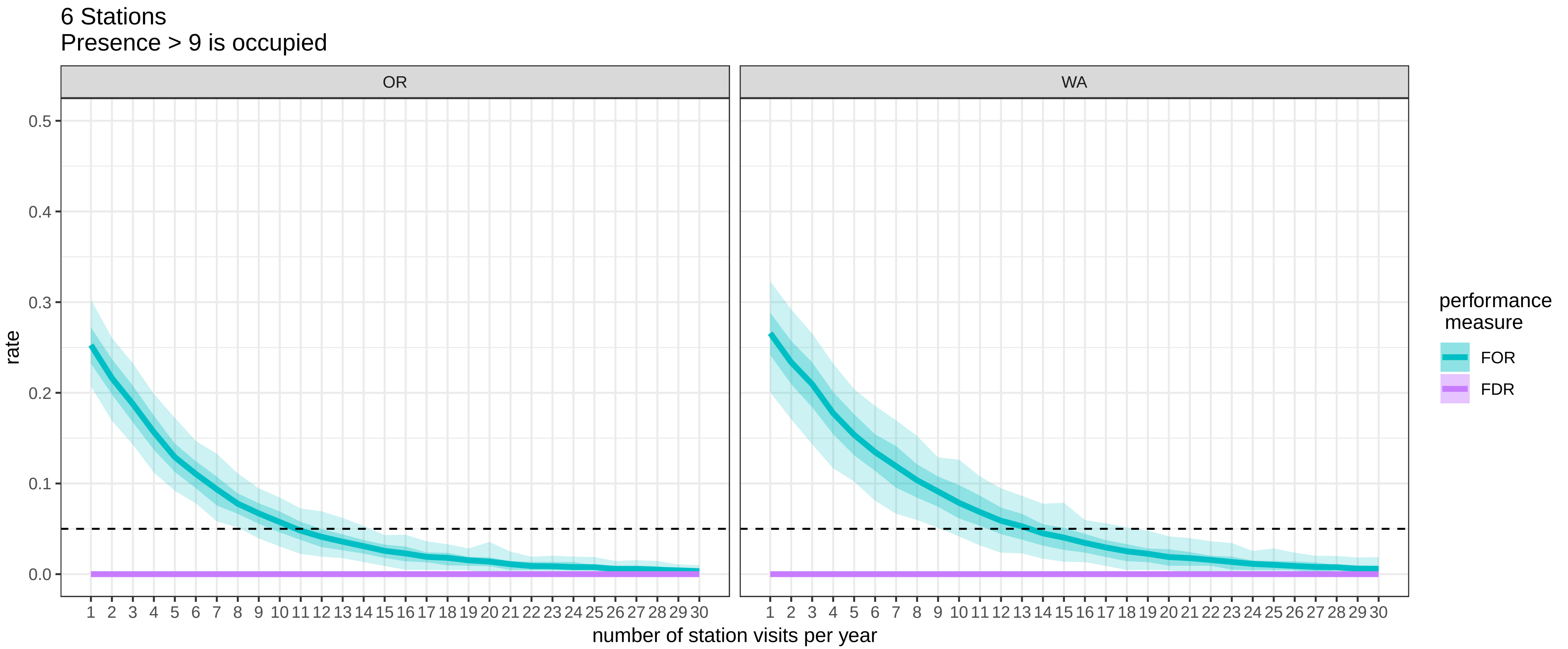


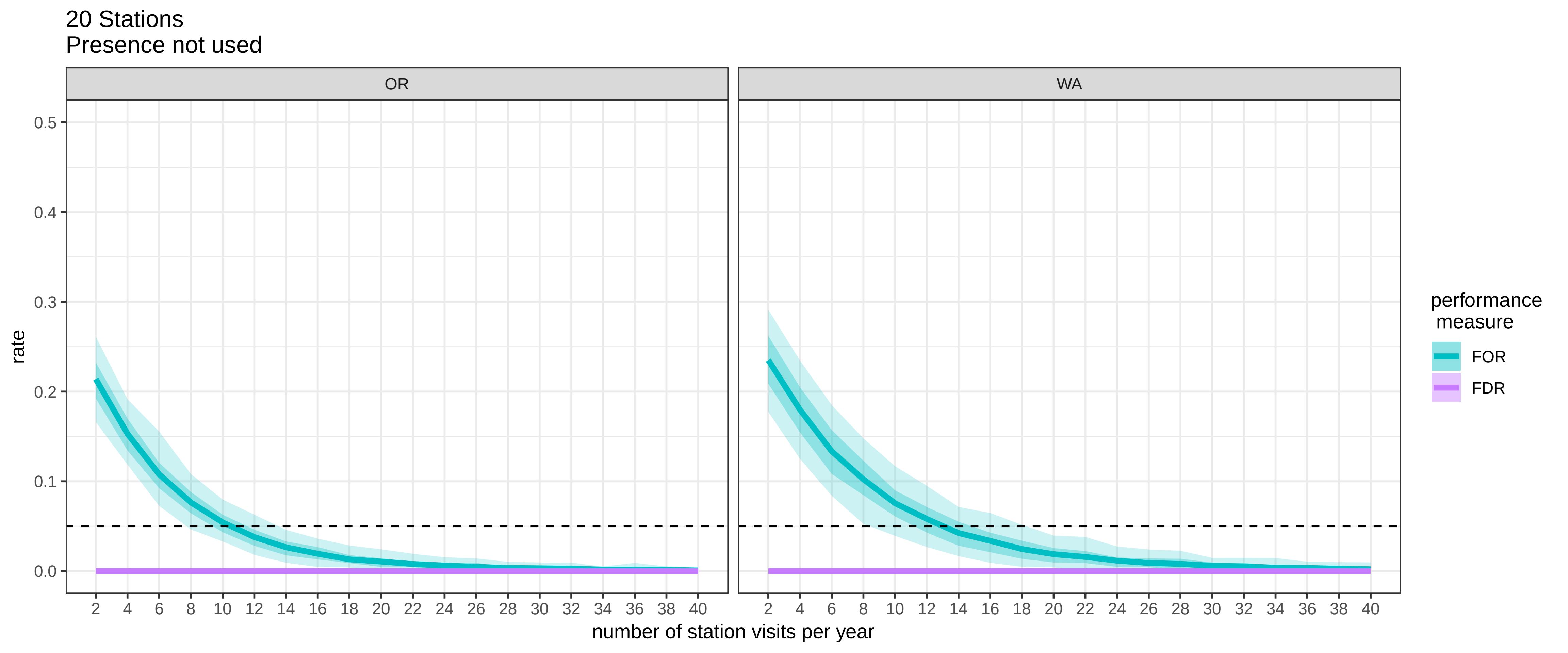
6 Stations
Presence > 5 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR


6 Stations
Presence > 6 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

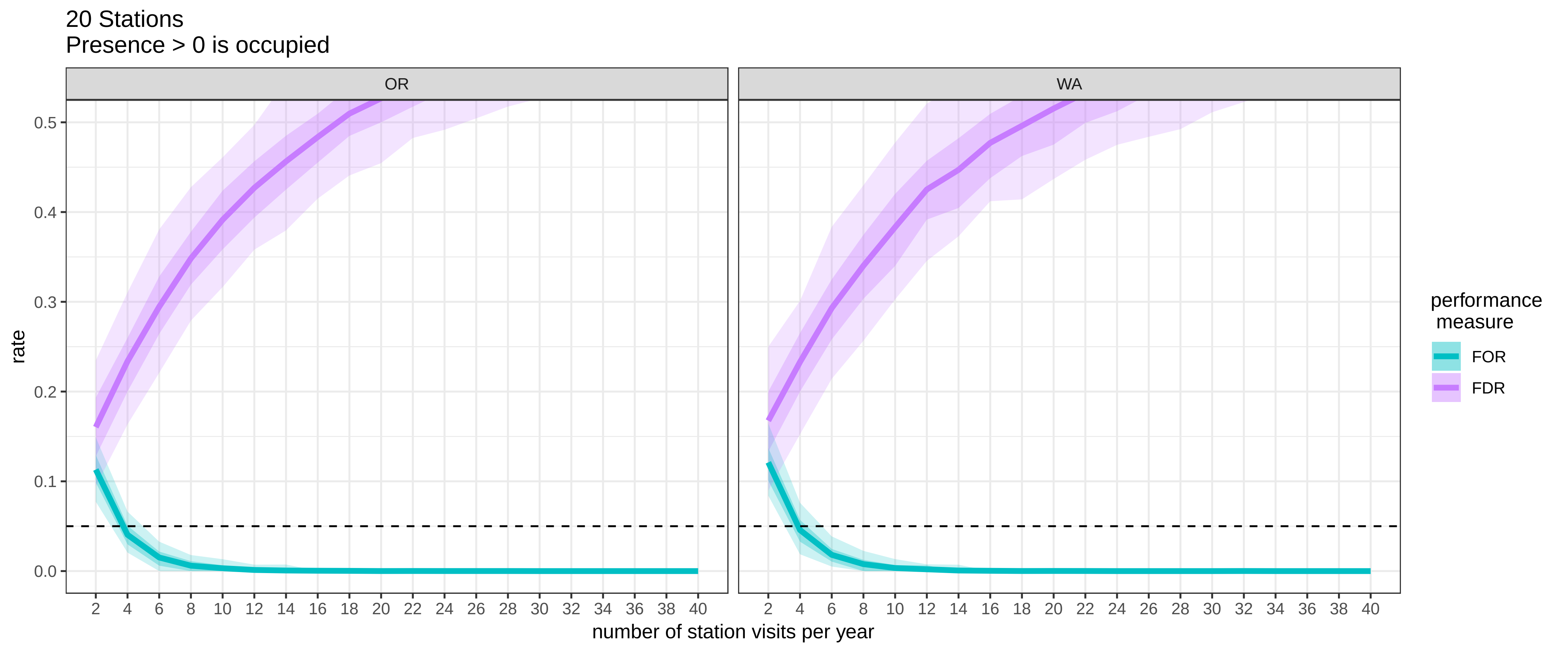

6 Stations
Presence > 7 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
number of station visits per year
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
performance measure
FOR
FDR

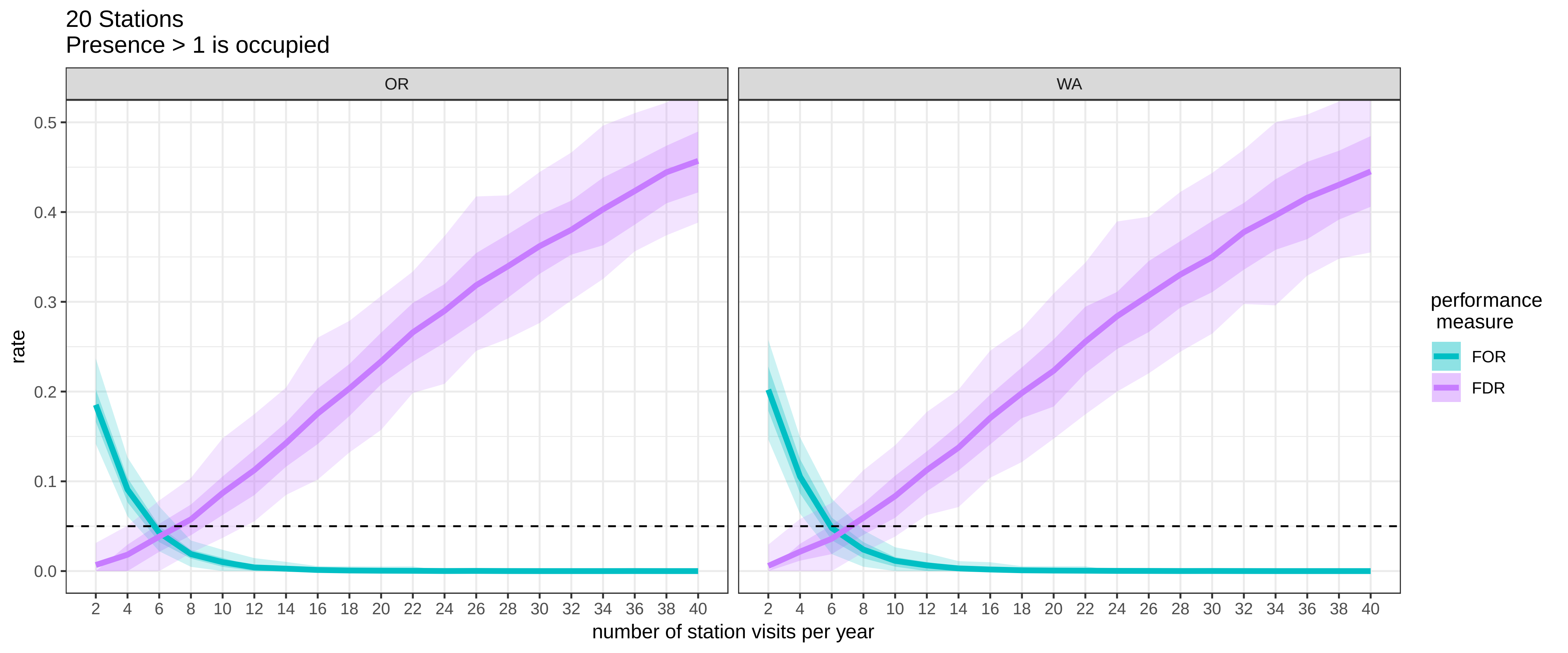

6 Stations
Presence > 8 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR


6 Stations
Presence > 9 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FOR
FDR

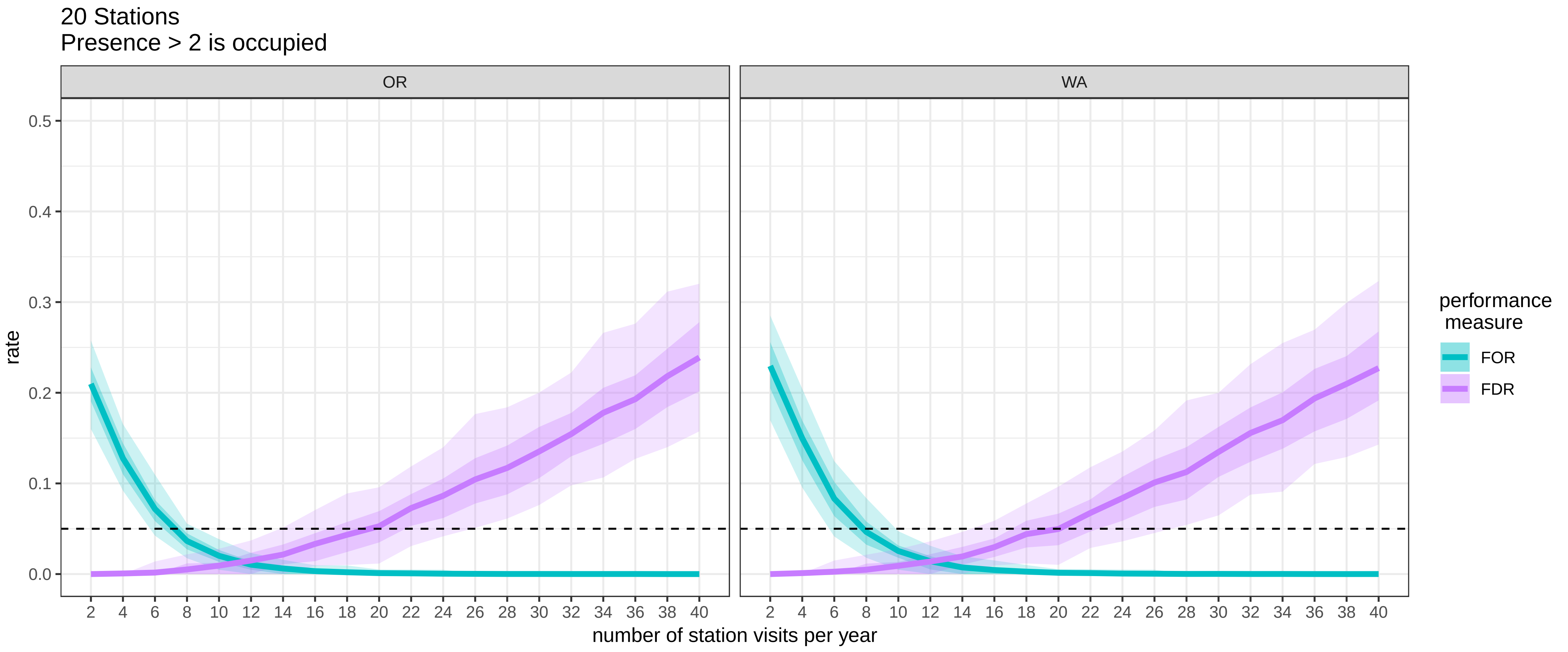


20 Stations
Presence not used
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40
number of station visits per year
performance measure
FOR
FDR

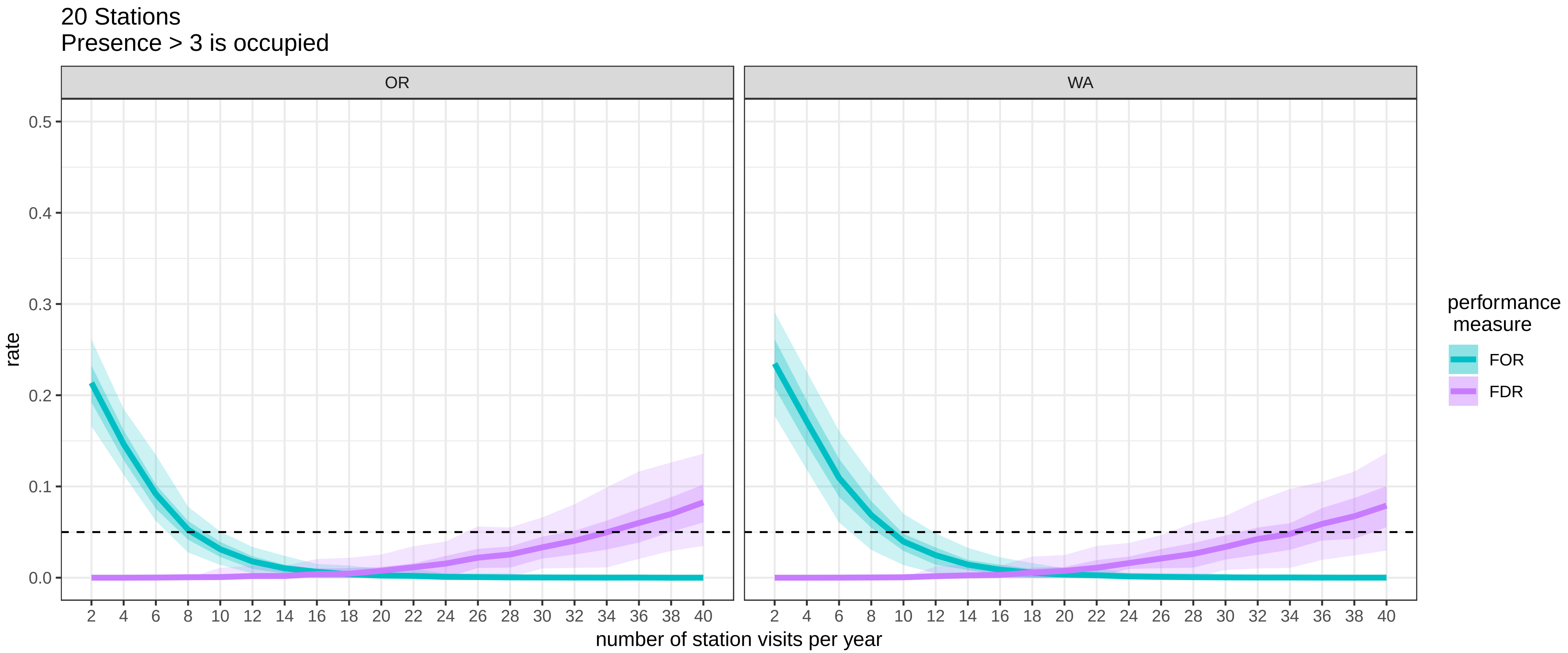

20 Stations
Presence > 0 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FOR
FDR

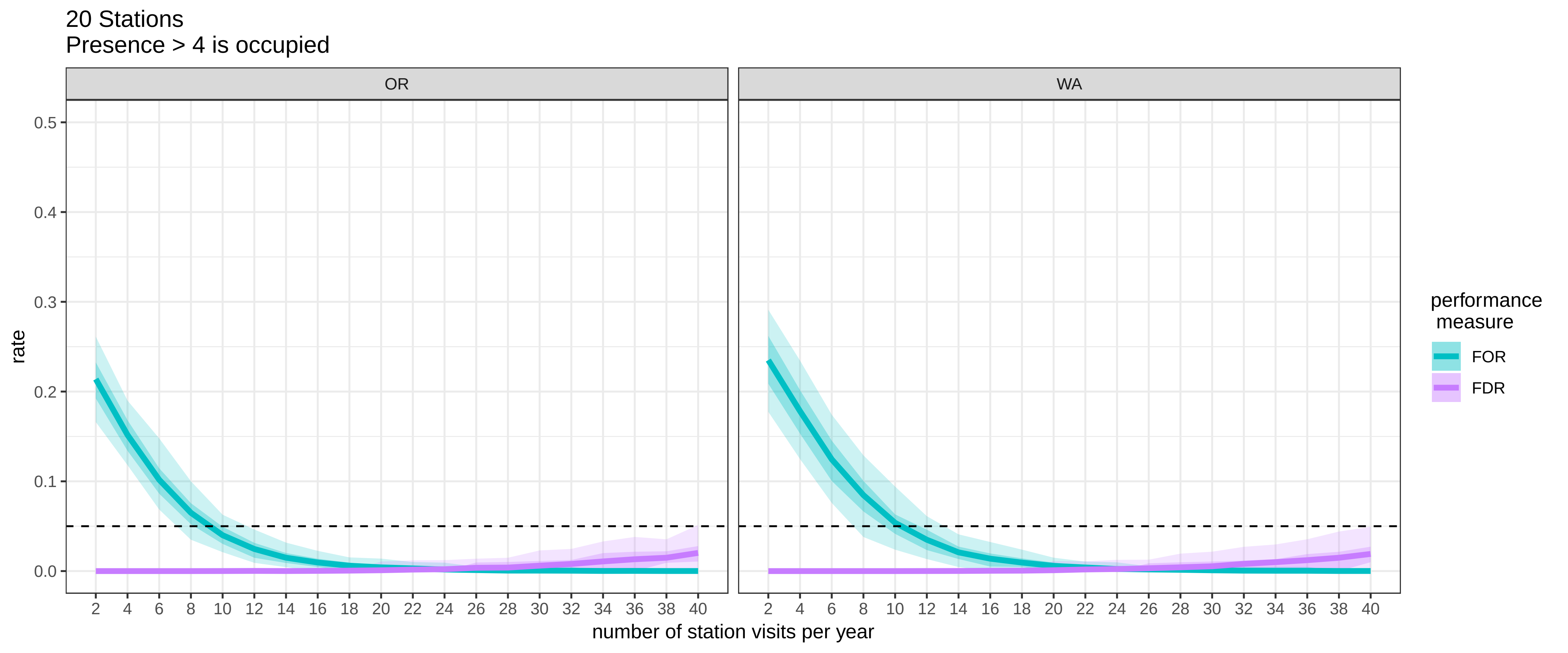


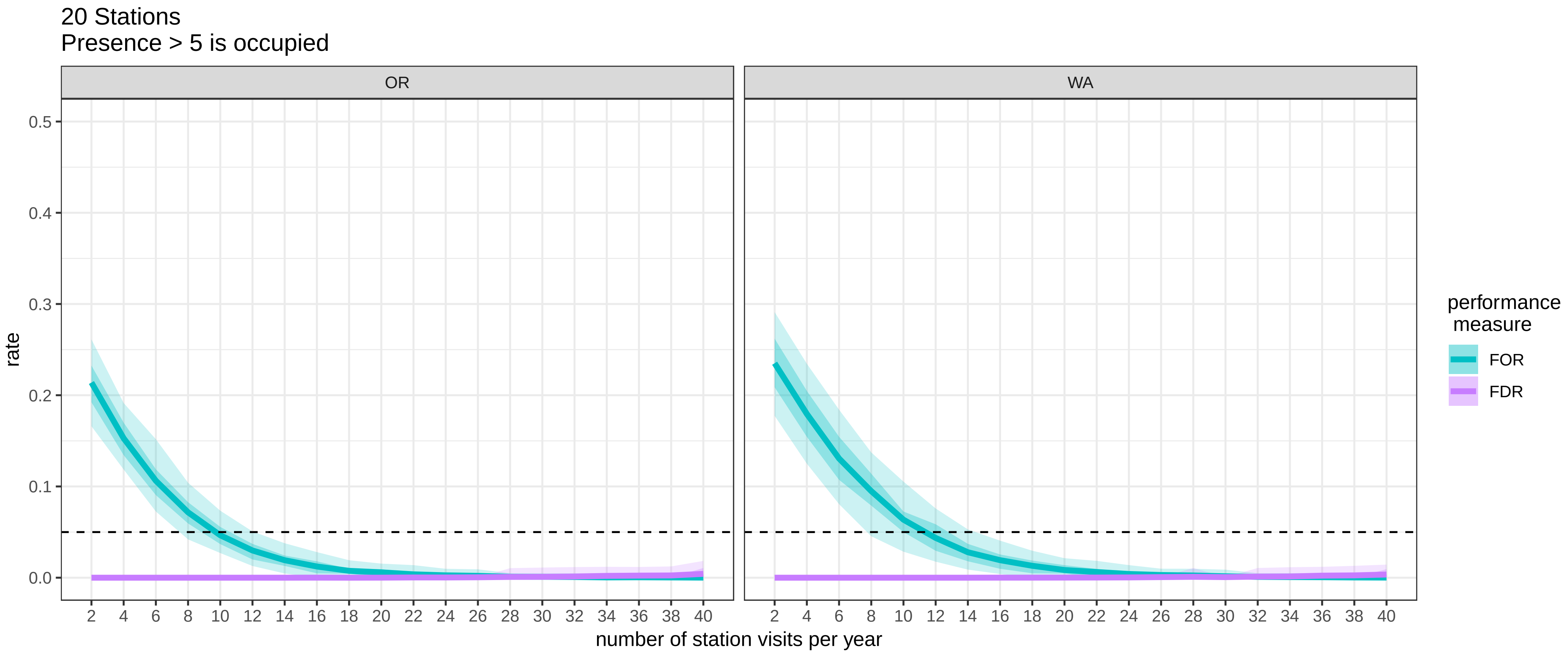
20 Stations
Presence > 1 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FOR
FDR

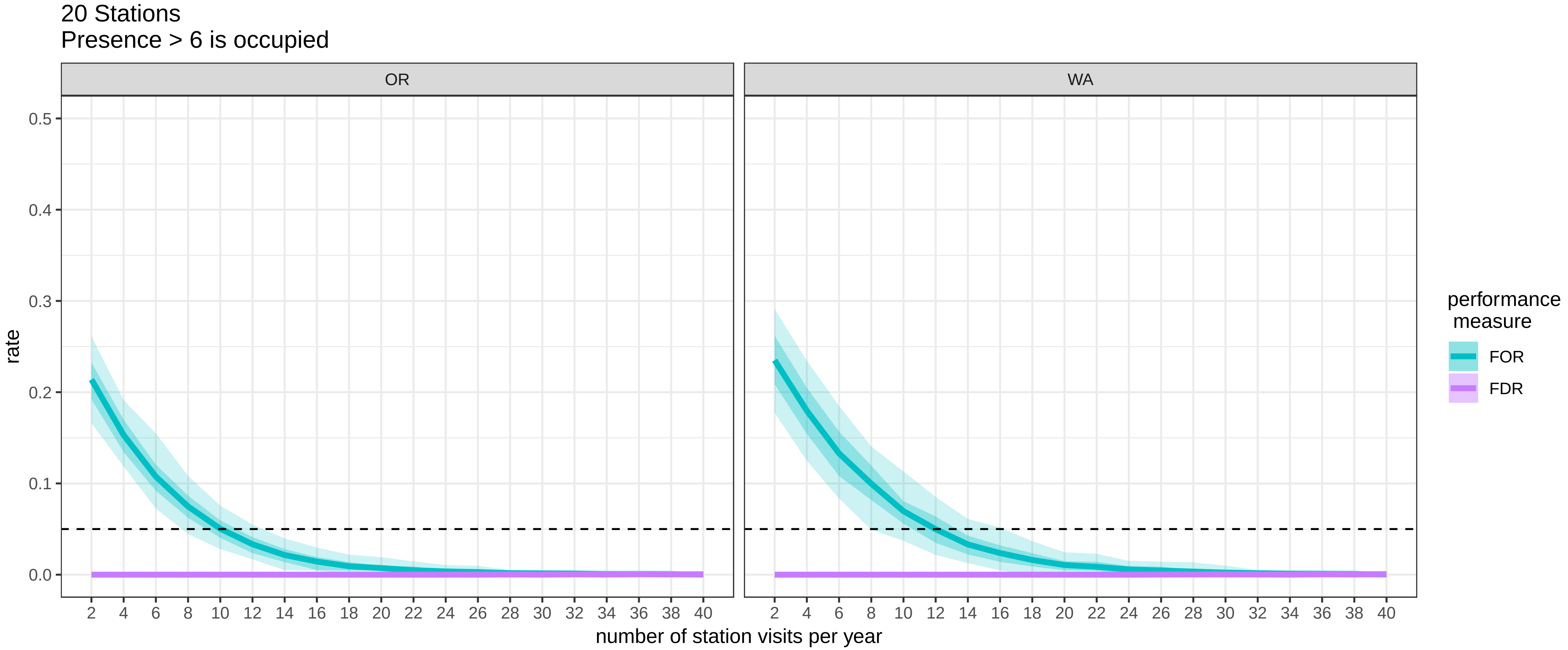


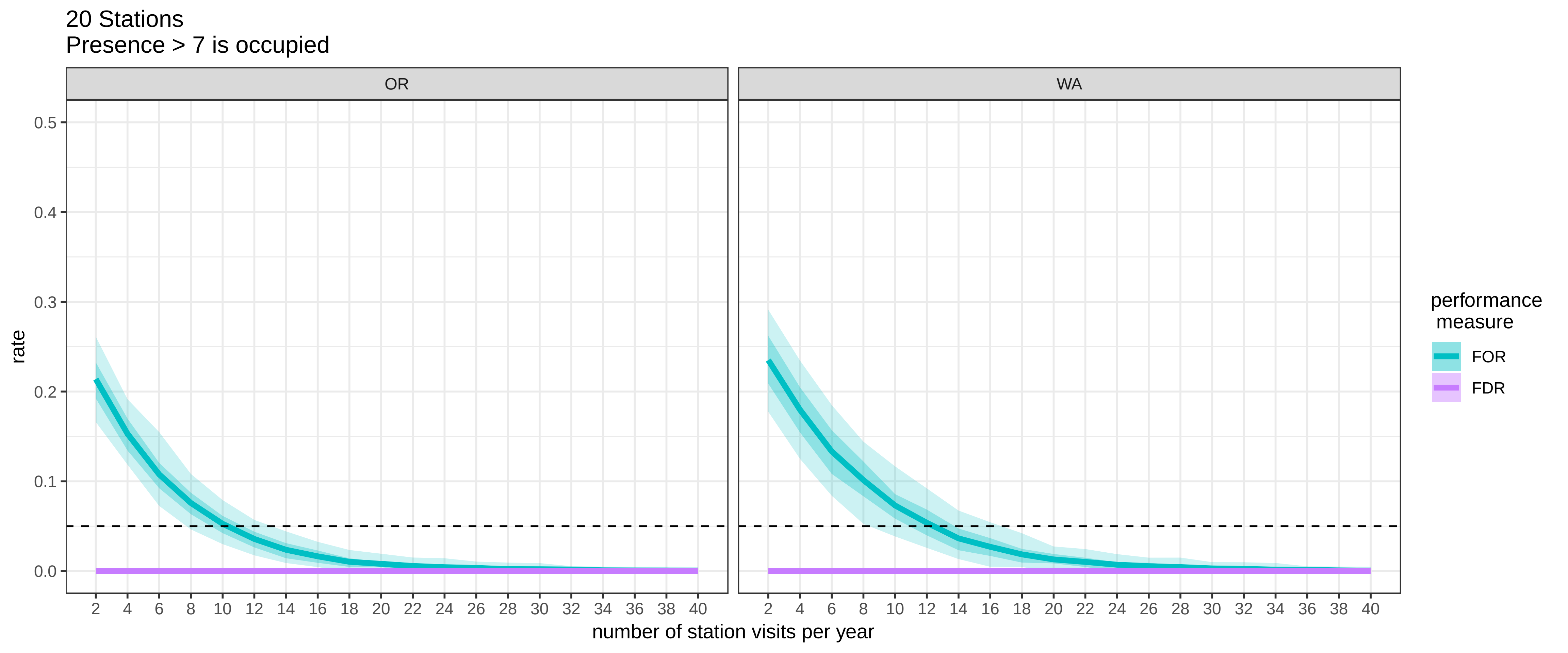
20 Stations
Presence > 2 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40
number of station visits per year
performance measure
FOR
FDR

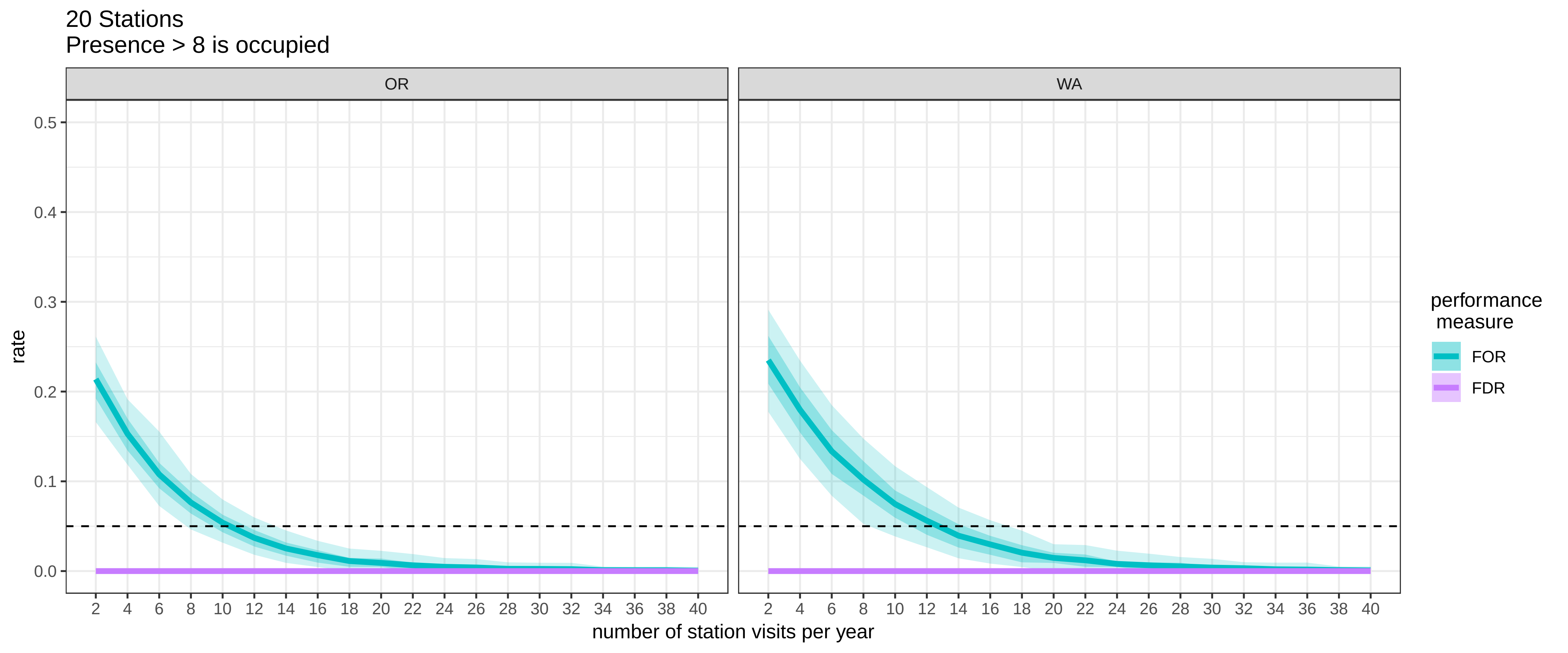

20 Stations
Presence > 3 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40
number of station visits per year
performance measure
FOR
FDR


20 Stations
Presence > 4 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40
number of station visits per year
performance measure
FOR
FDR

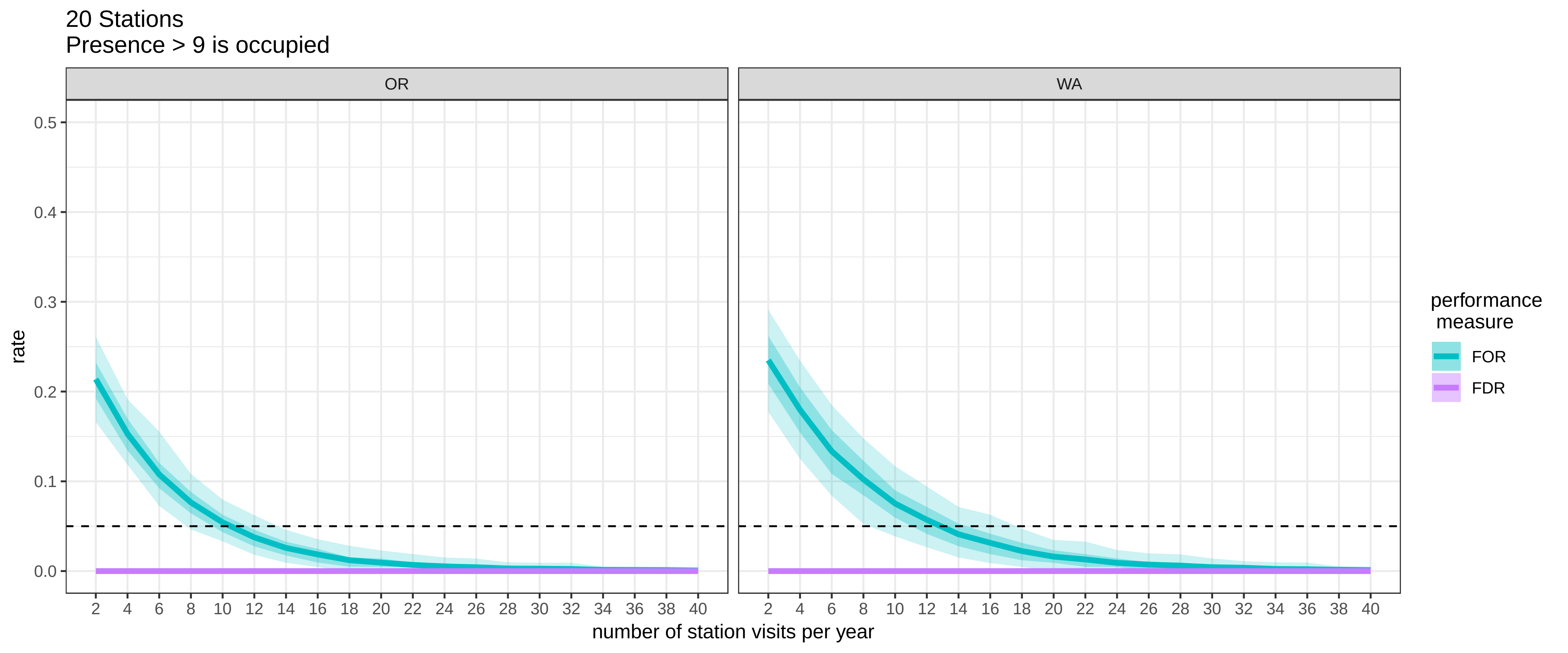

20 Stations
Presence > 5 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40
number of station visits per year
performance measure
FOR
FDR

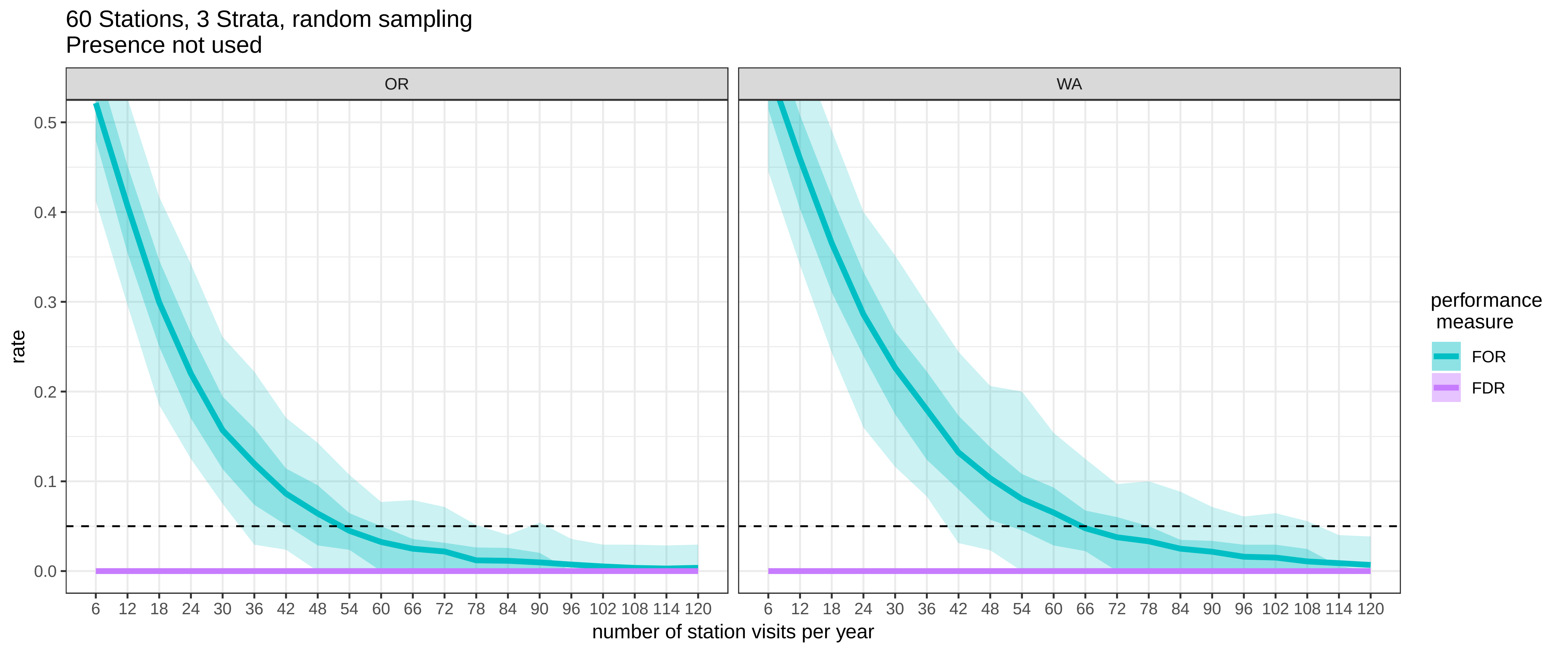

20 Stations
Presence > 6 is occupied
OR
WA
rate
0.5
0.4
0.3
0.2
0.1
0.0
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40
number of station visits per year
performance measure
FOR
FDR

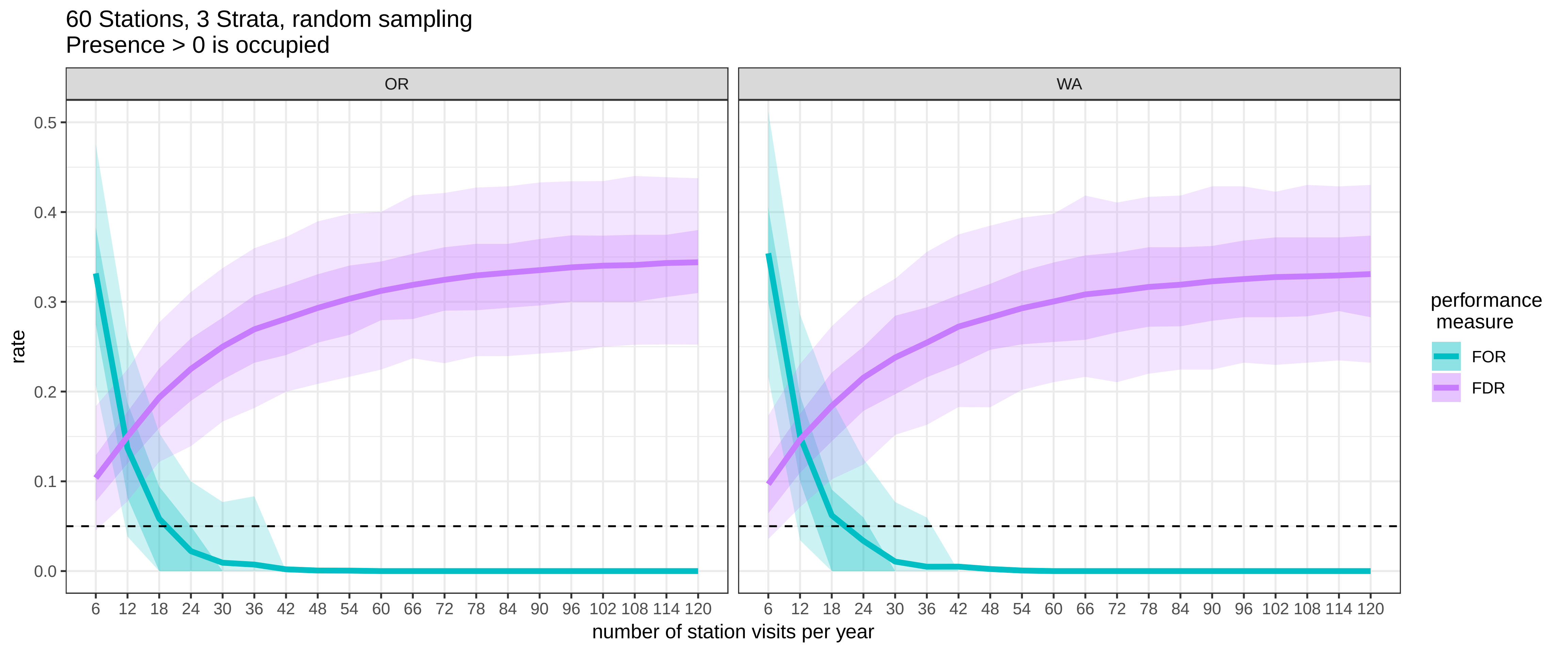

20 Stations
Presence > 7 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FOR
FDR



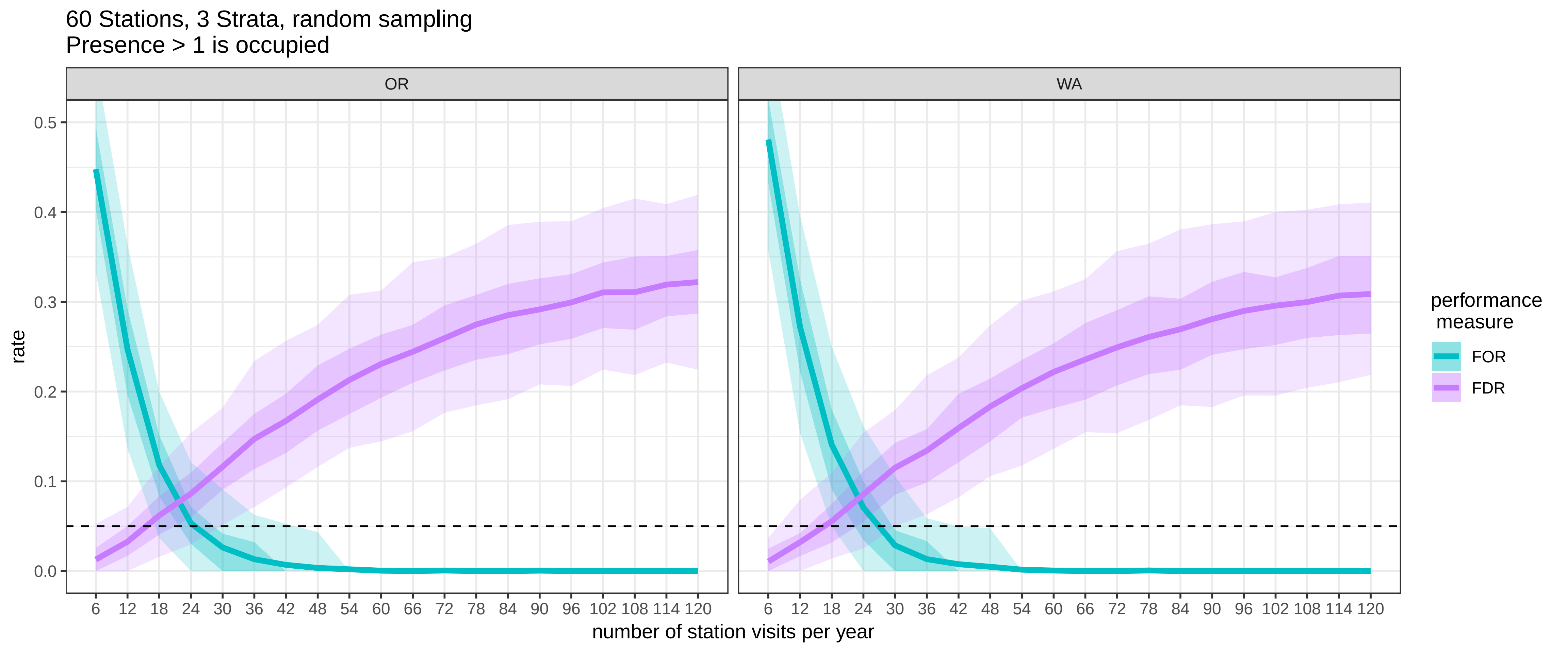
20 Stations
Presence > 8 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FOR
FDR


20 Stations
Presence > 9 is occupied
OR
WA
rate
0.5
0.4
0.3
0.2
0.1
0.0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FOR
FDR

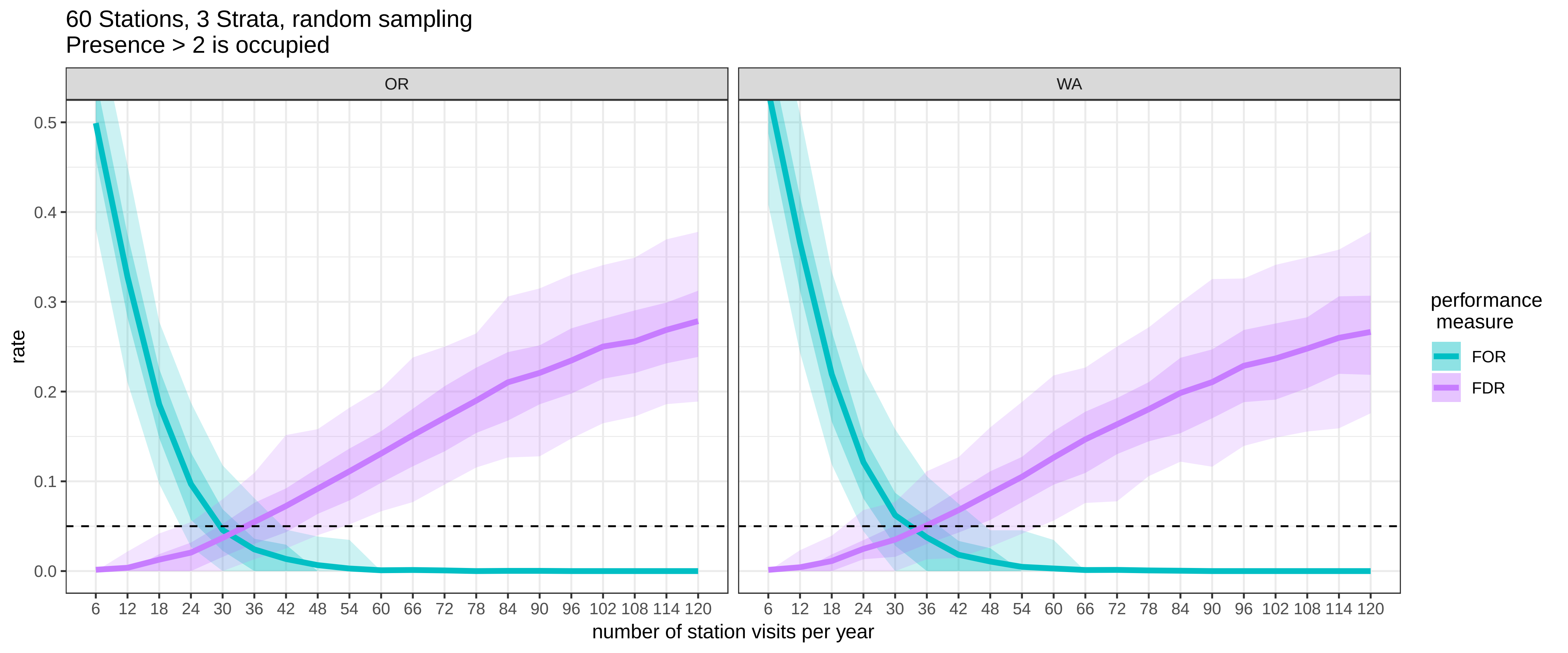

60 Stations, 3 Strata, random sampling
Presence not used
OR
WA
rate
0.5
0.4
0.3
0.2
0.1
0.0
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR



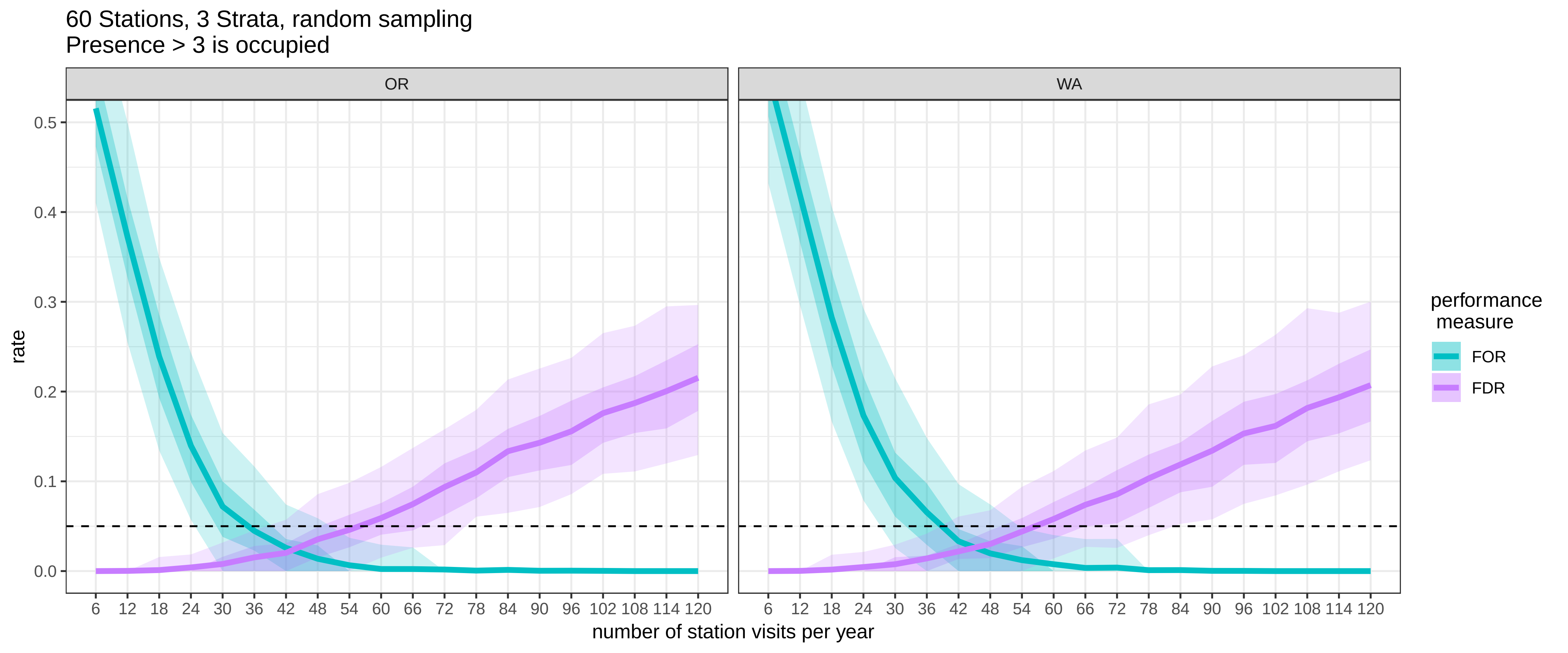
60 Stations, 3 Strata, random sampling
Presence > 0 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR

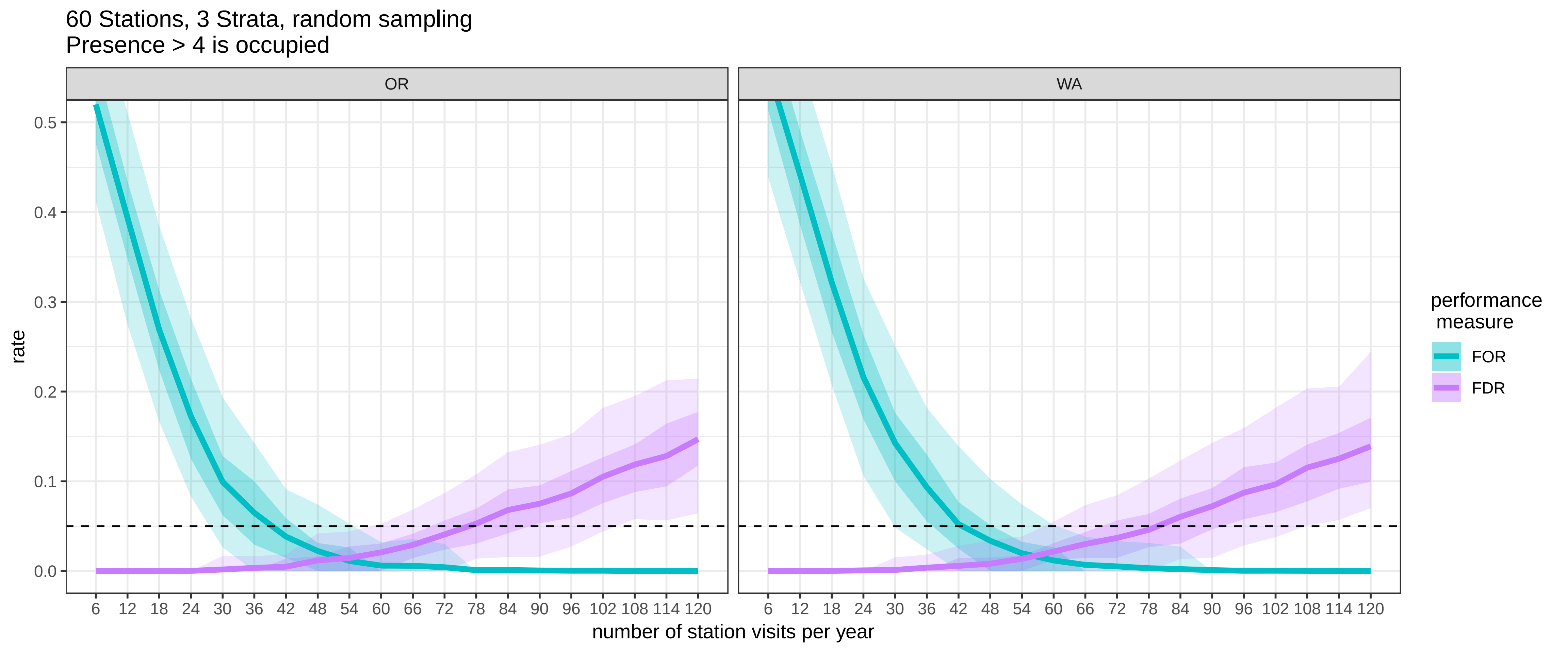


60 Stations, 3 Strata, random sampling
Presence > 1 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR

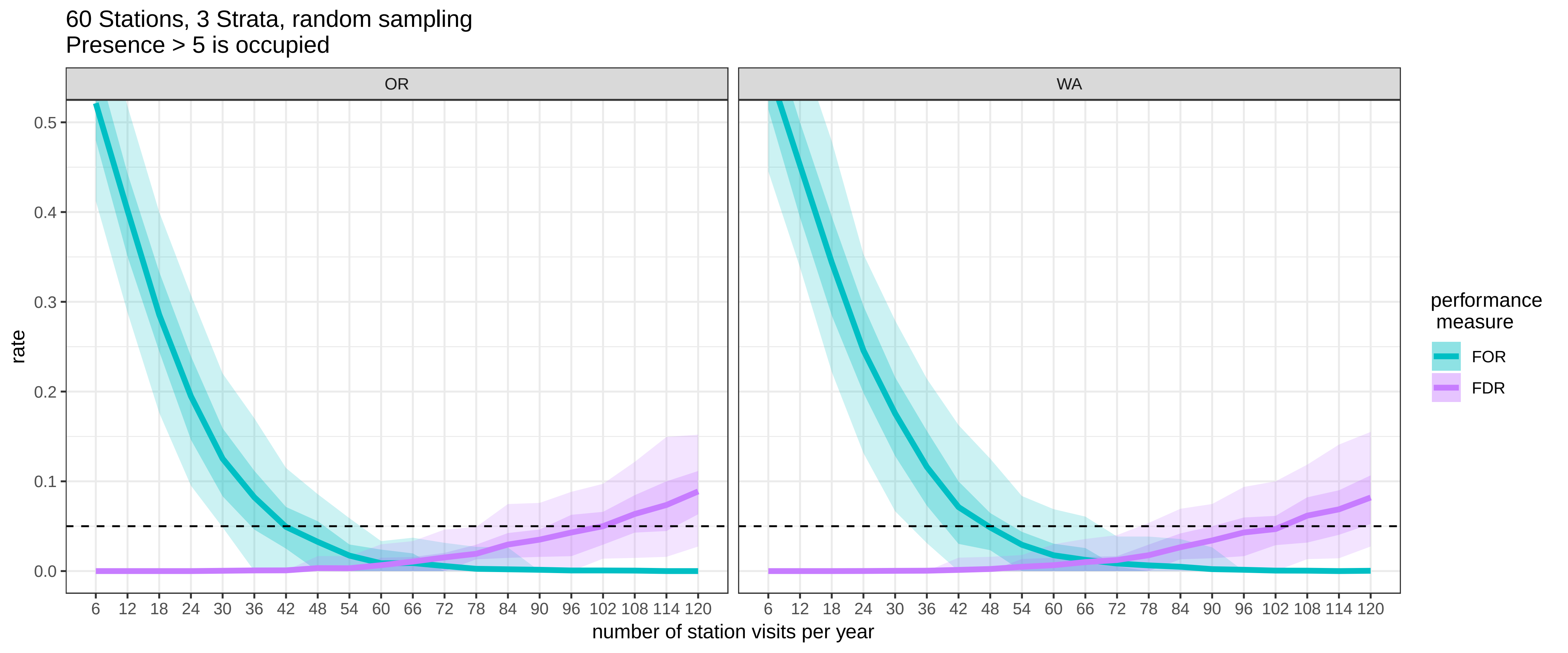


60 Stations, 3 Strata, random sampling
Presence > 2 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR

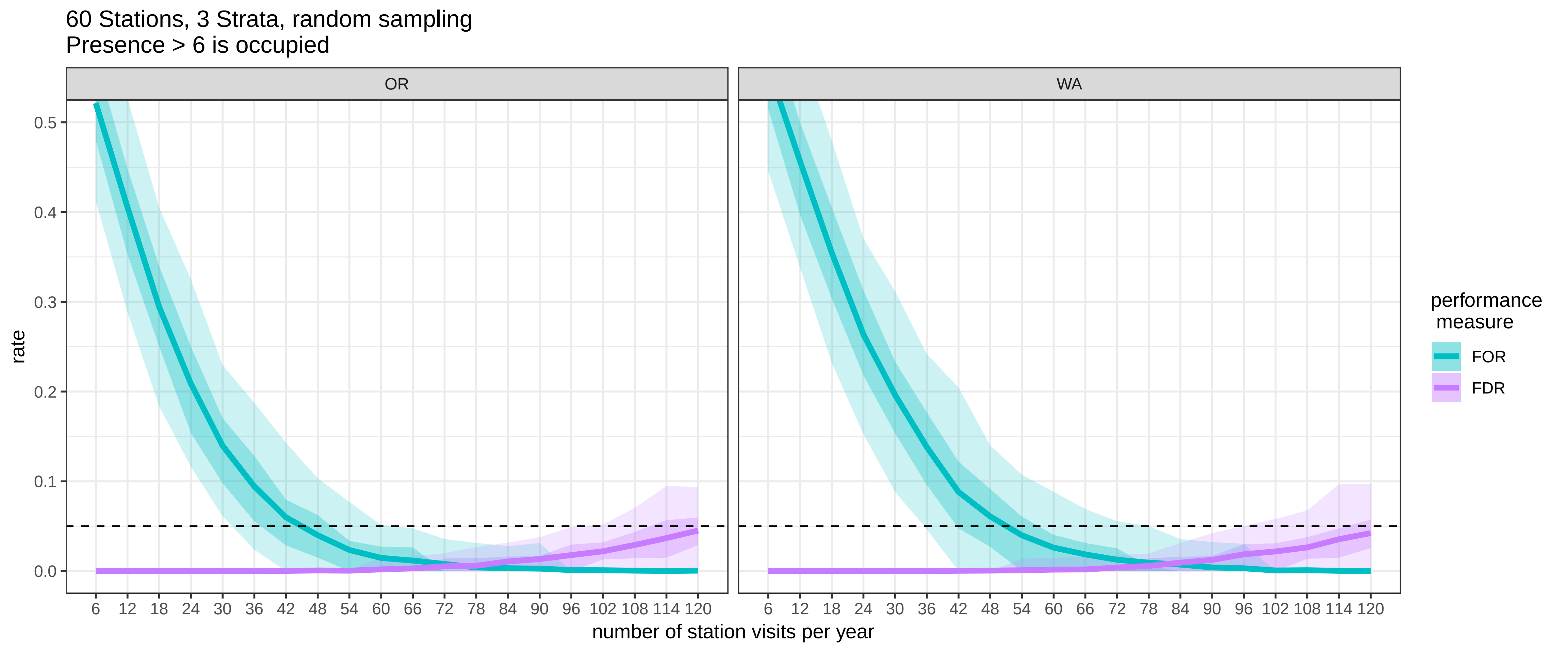

60 Stations, 3 Strata, random sampling
Presence > 3 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR

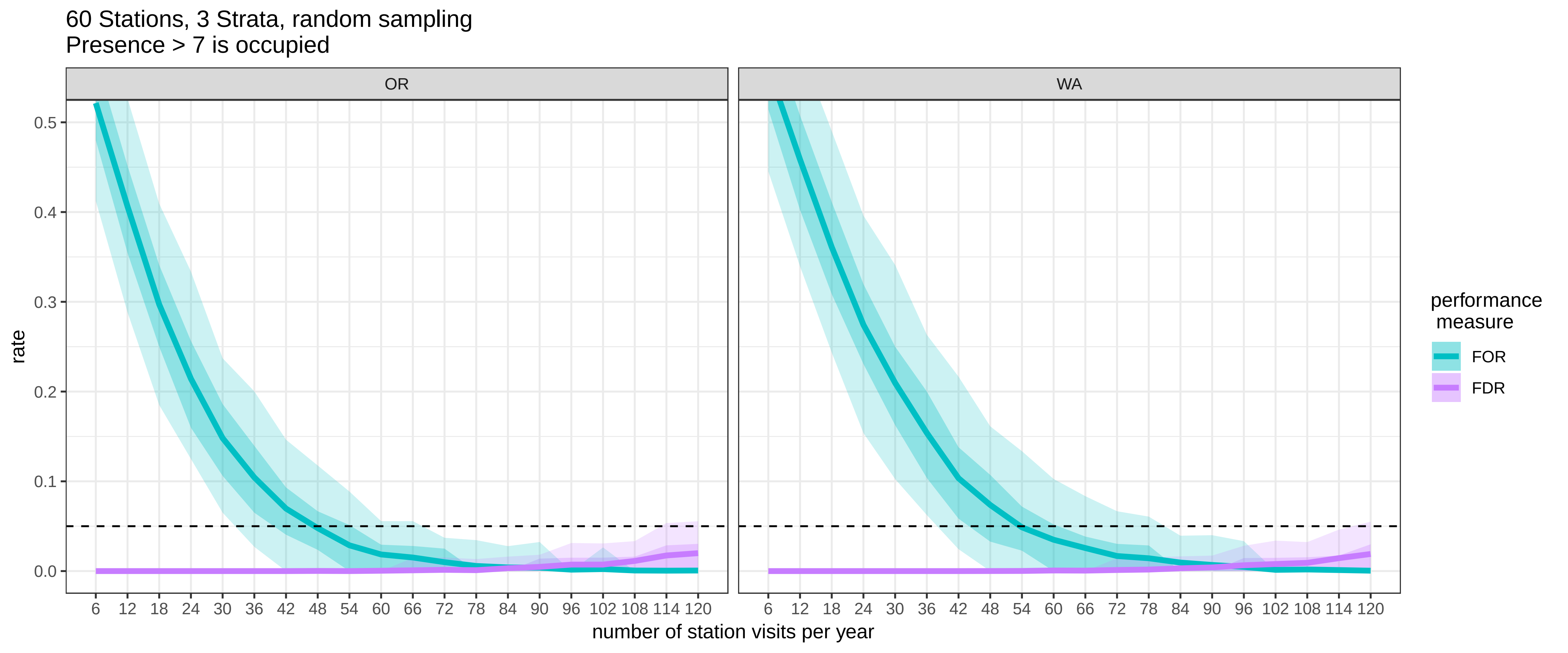


60 Stations, 3 Strata, random sampling
Presence > 4 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR

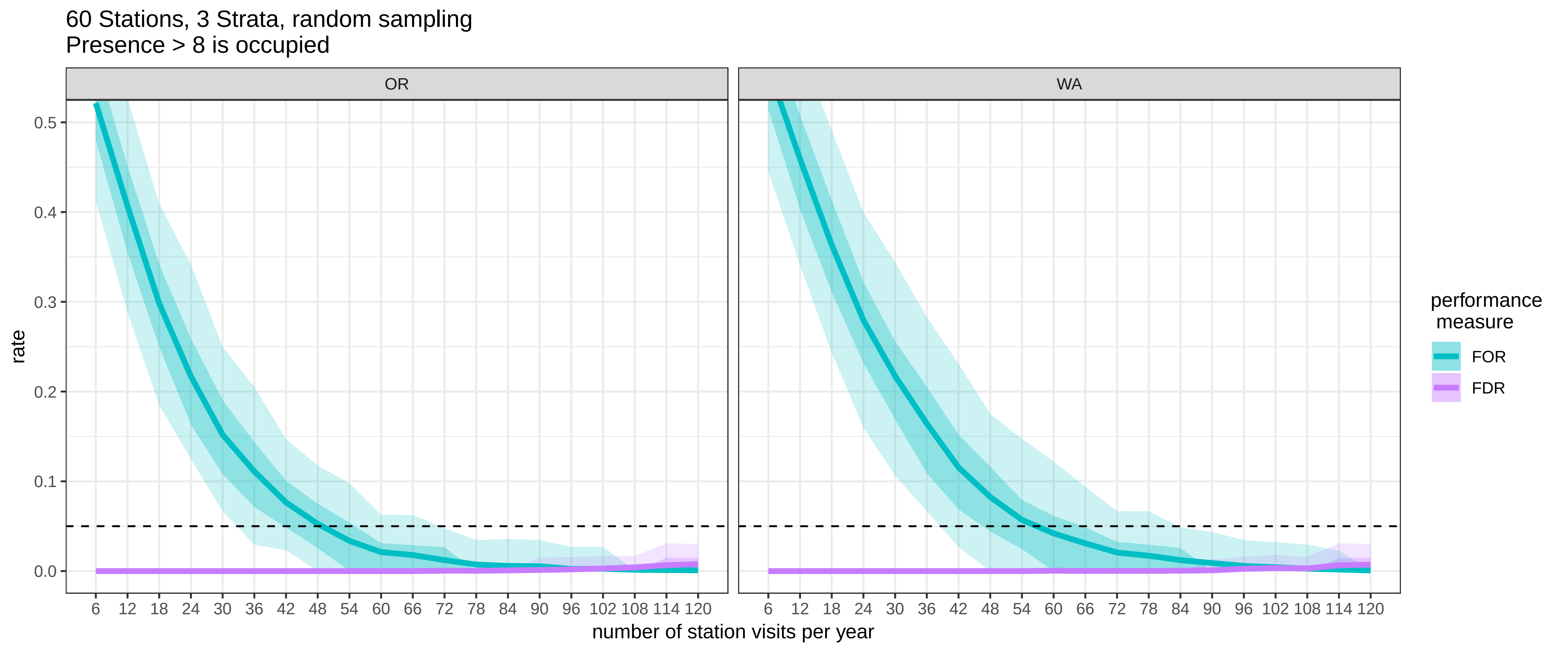


60 Stations, 3 Strata, random sampling
Presence > 5 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR

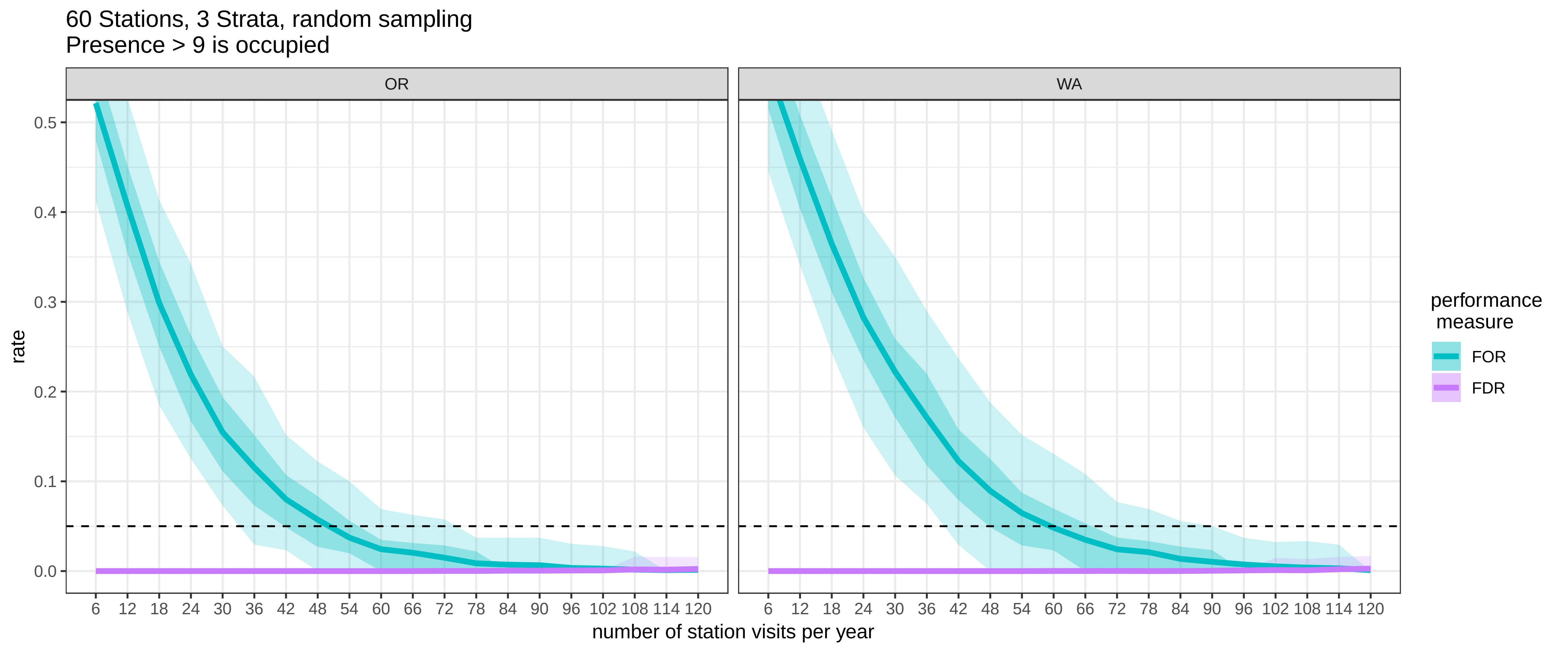

60 Stations, 3 Strata, random sampling
Presence > 6 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR



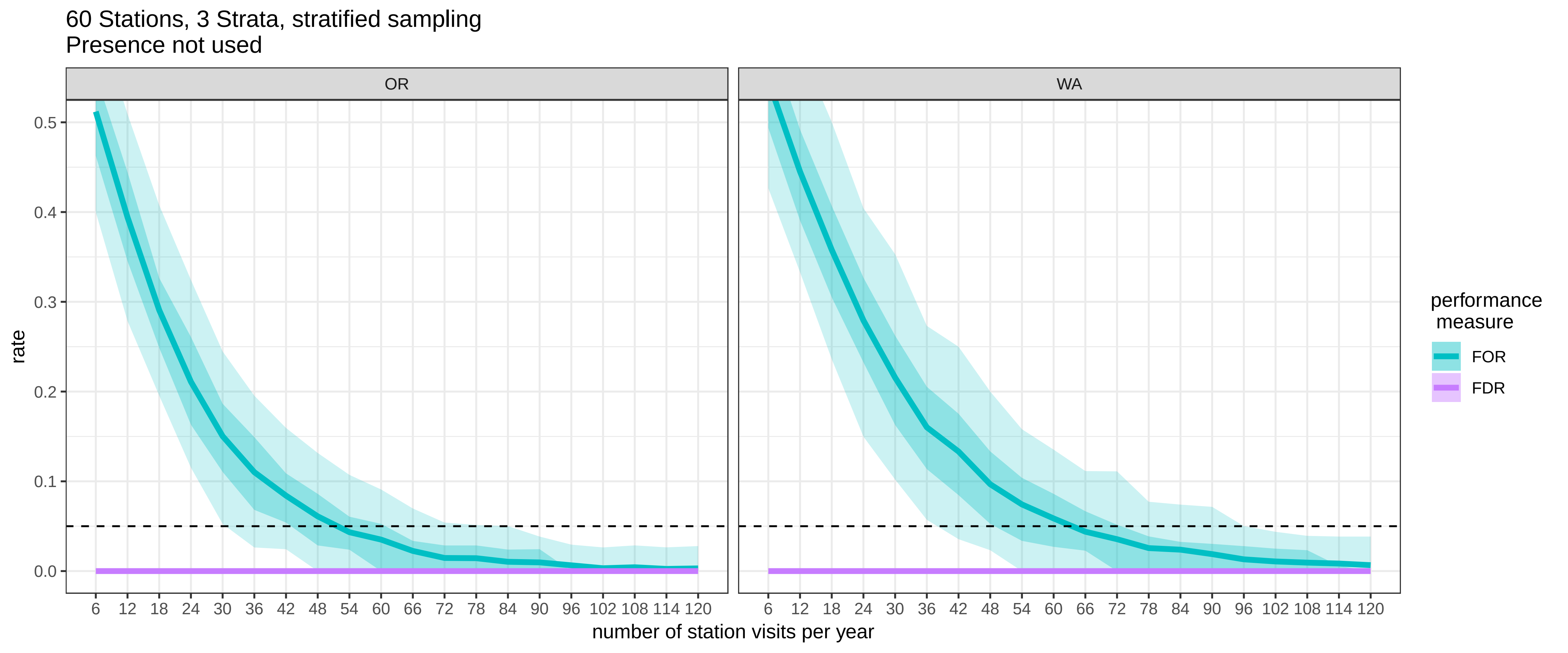
60 Stations, 3 Strata, random sampling
Presence > 7 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR



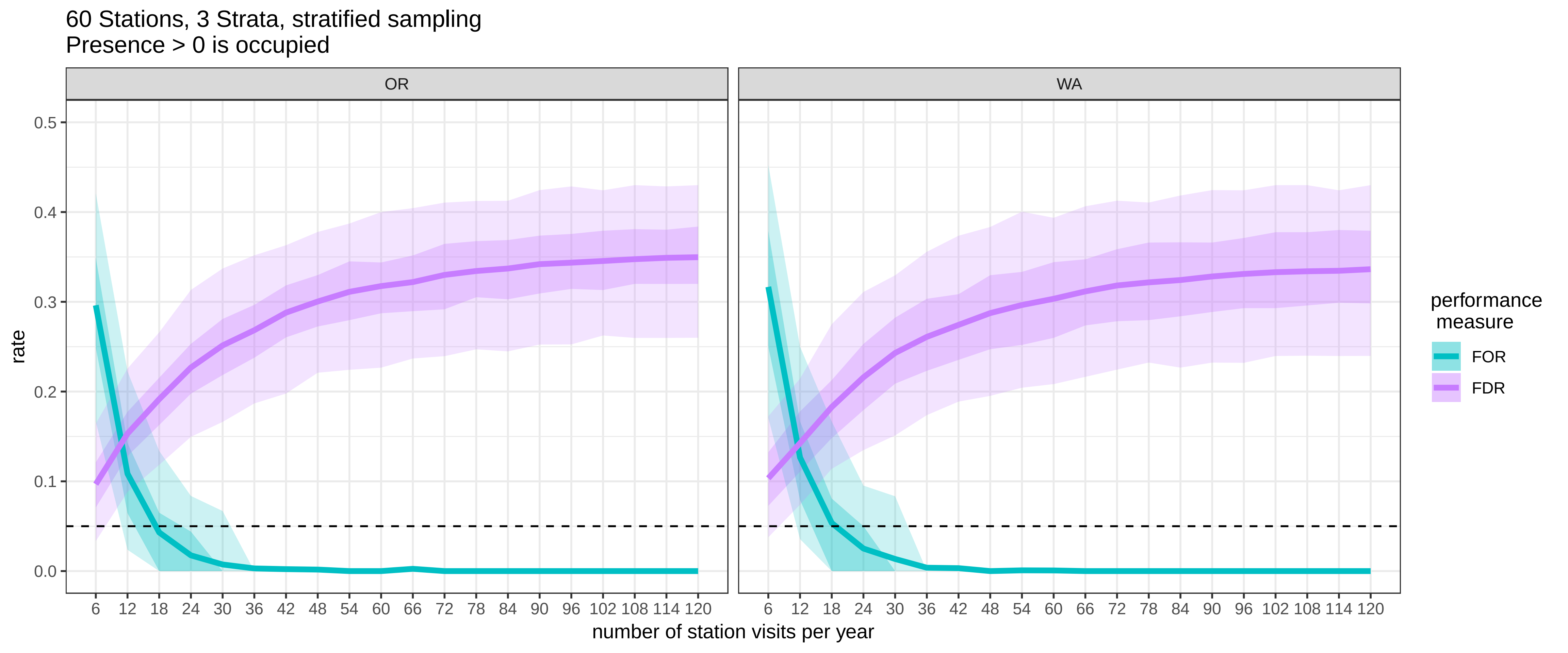
60 Stations, 3 Strata, random sampling
Presence > 8 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR



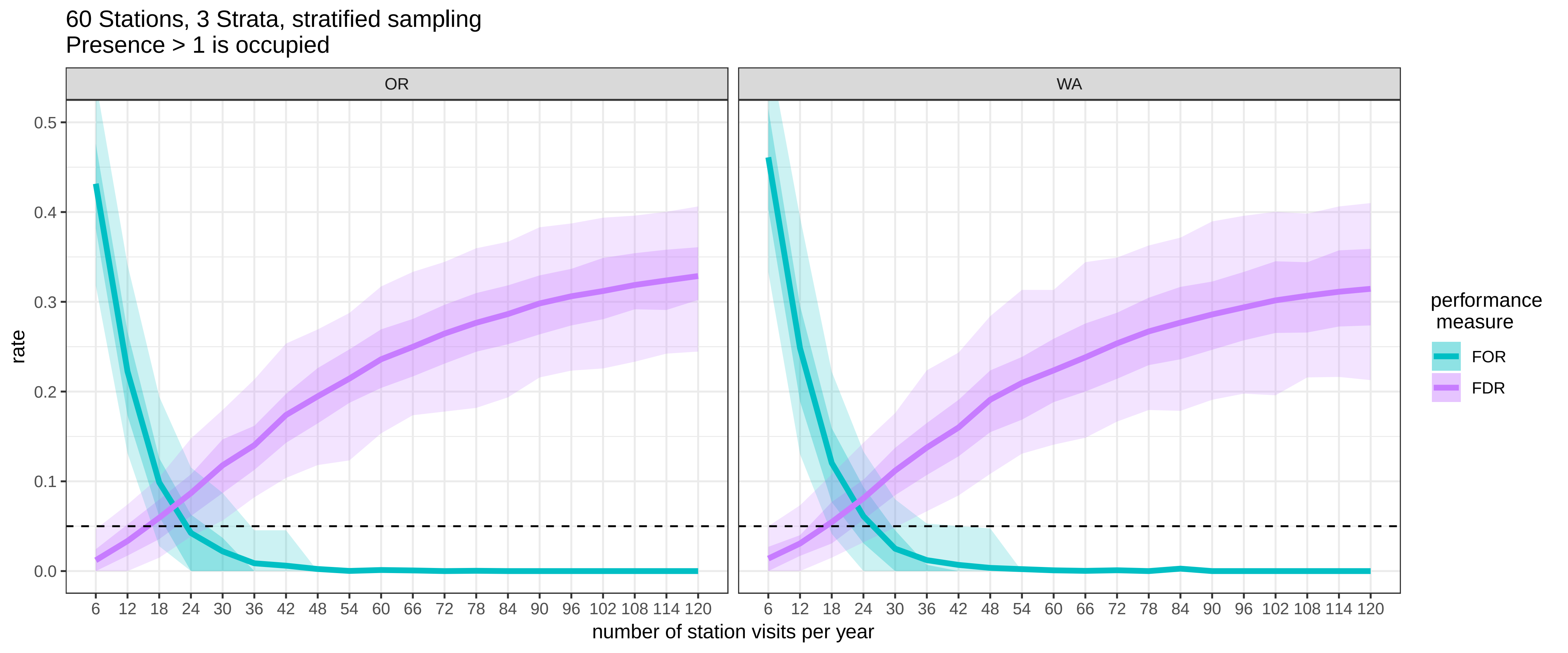
60 Stations, 3 Strata, random sampling
Presence > 9 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR



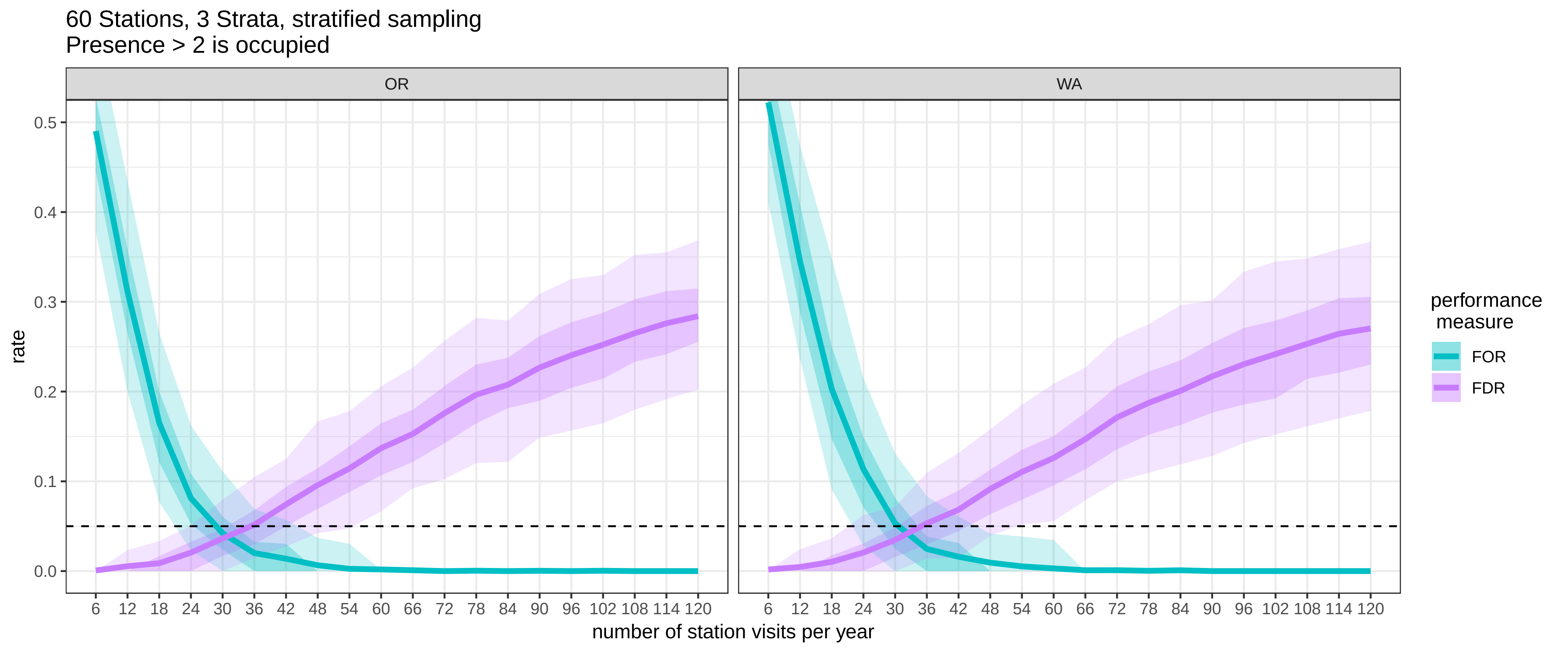
60 Stations, 3 Strata, stratified sampling
Presence not used
OR
WA
rate
0.5
0.4
0.3
0.2
0.1
0.0
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR

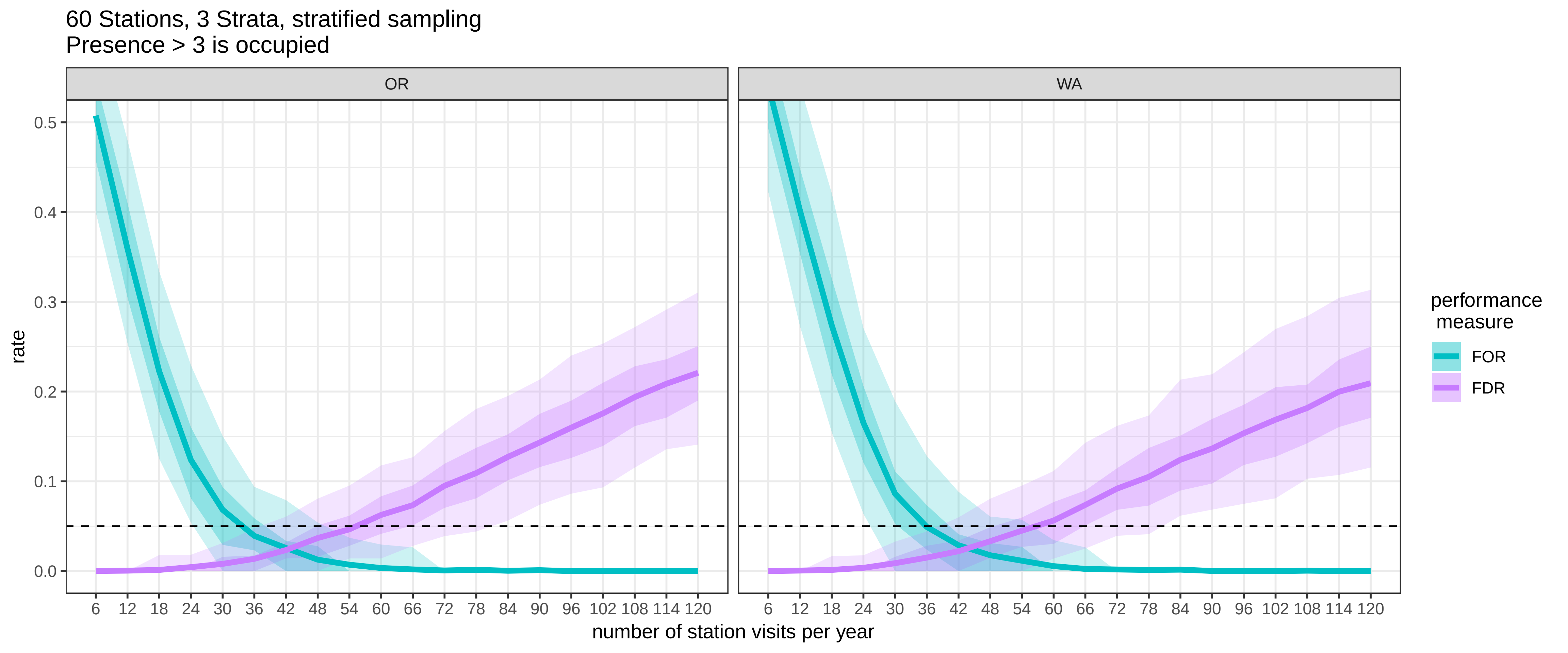


60 Stations, 3 Strata, stratified sampling
Presence > 0 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FOR
FDR

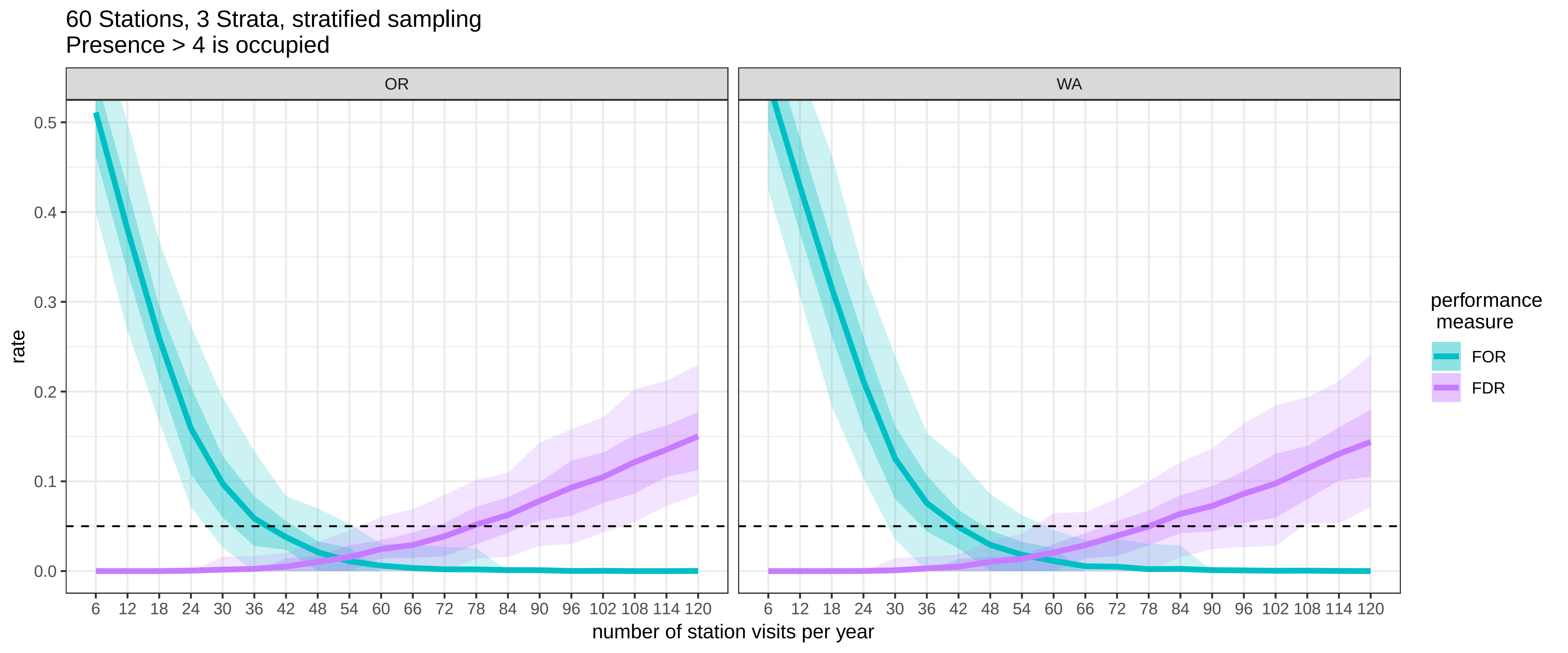


60 Stations, 3 Strata, stratified sampling
Presence > 1 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR

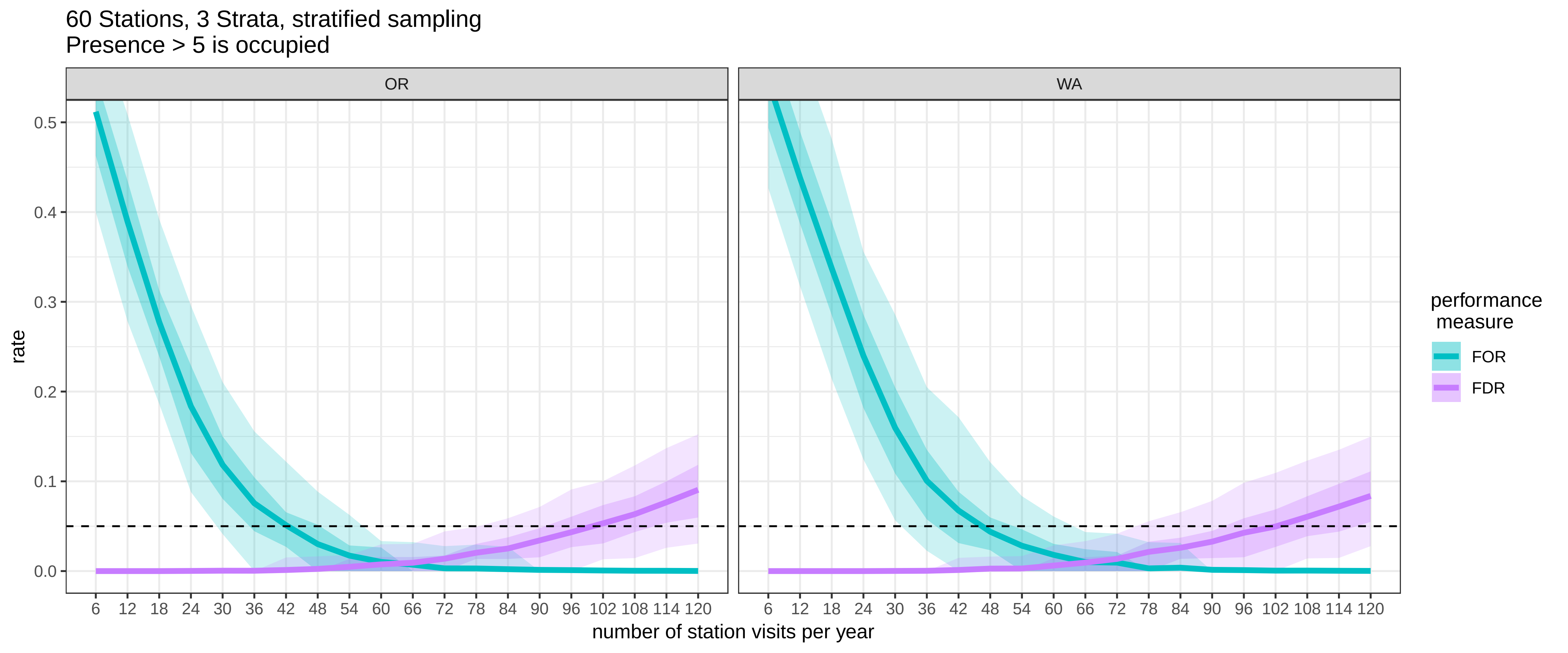

60 Stations, 3 Strata, stratified sampling
Presence > 2 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR



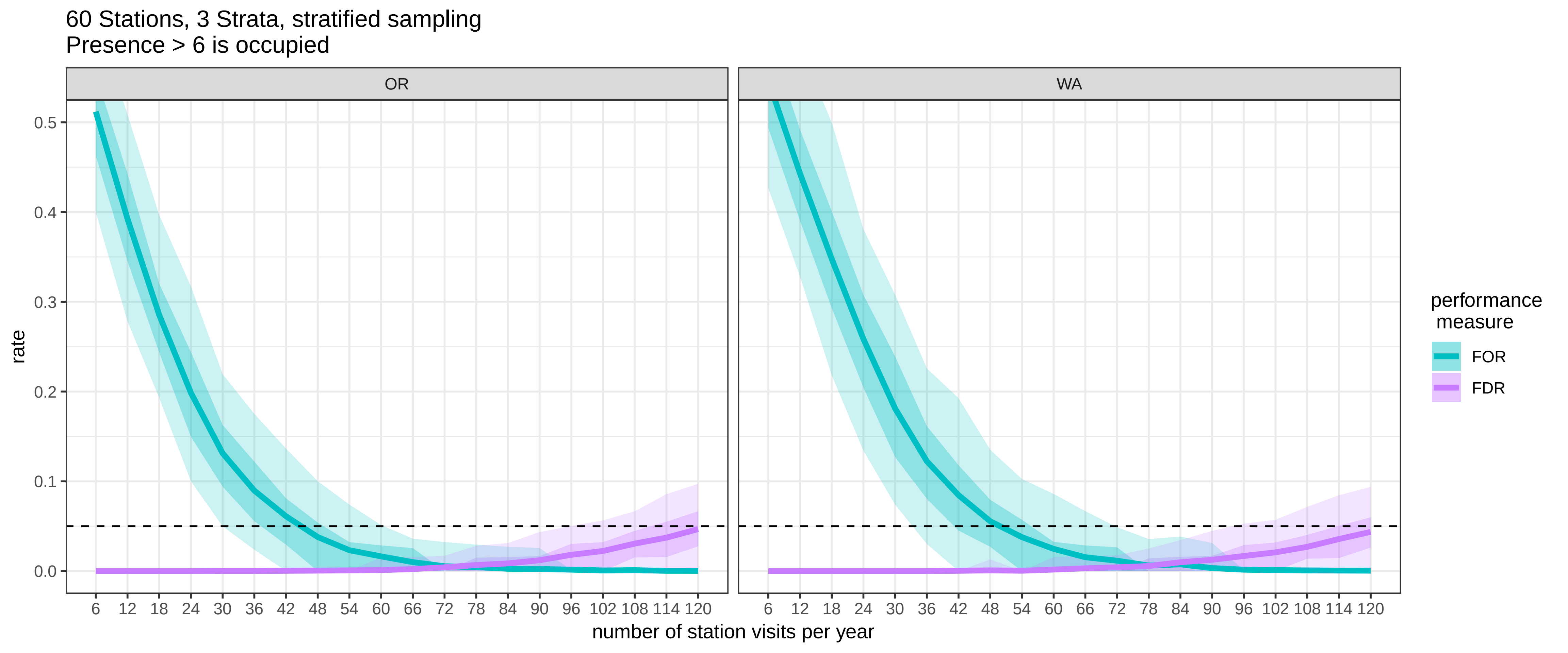
60 Stations, 3 Strata, stratified sampling
Presence > 3 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR

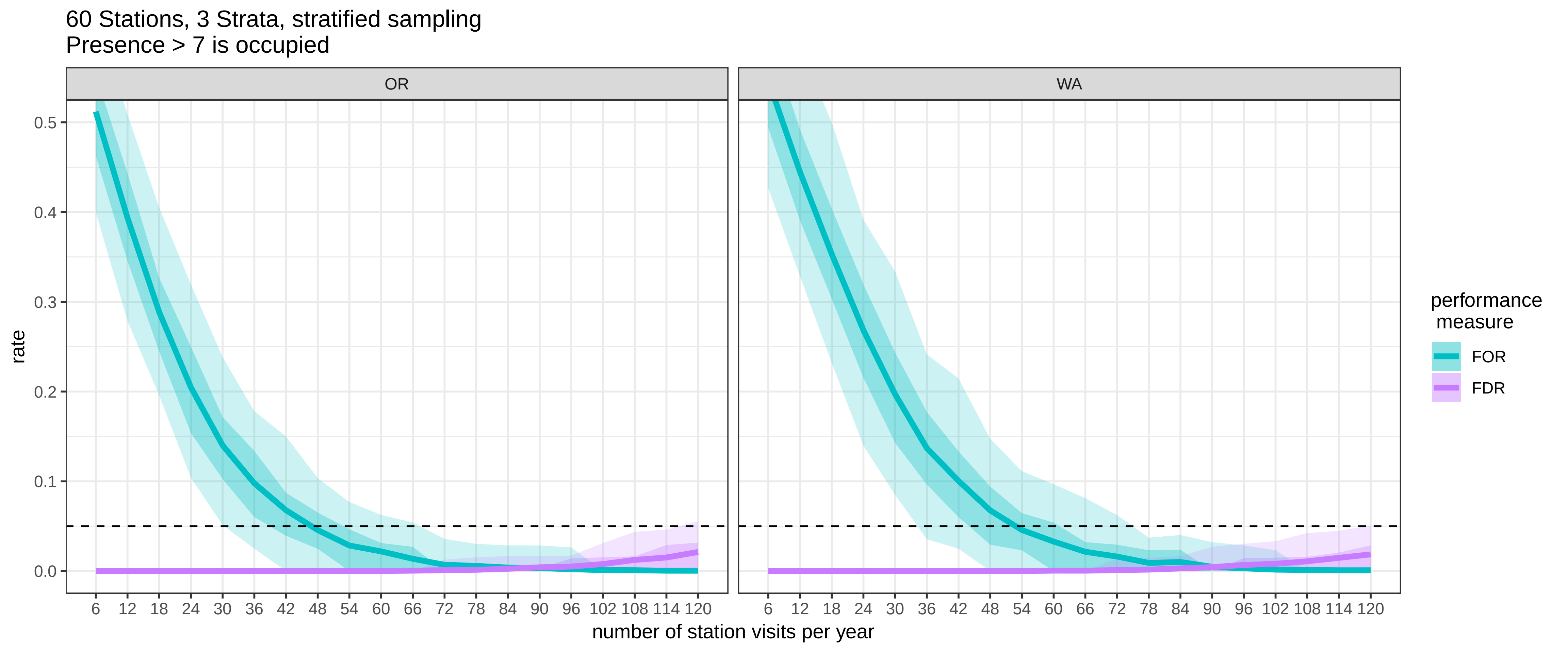


60 Stations, 3 Strata, stratified sampling
Presence > 4 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR

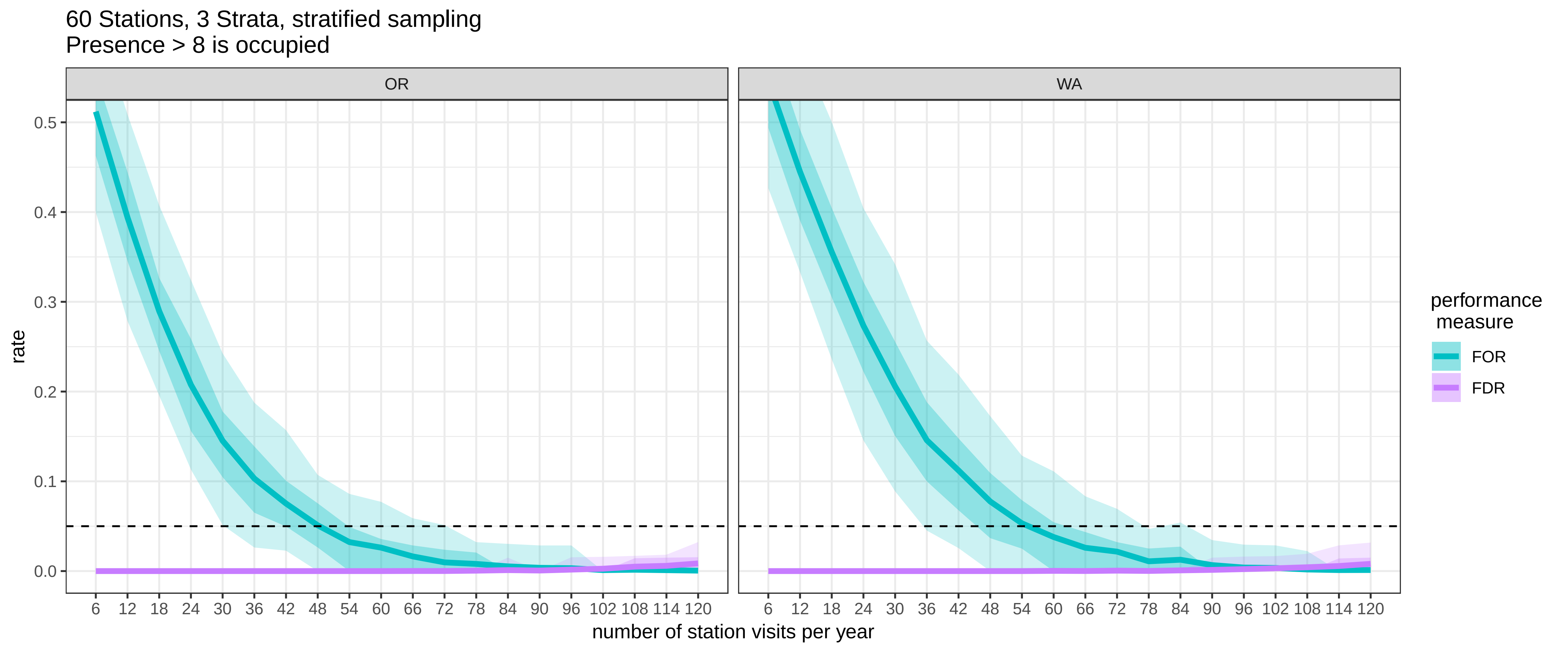


60 Stations, 3 Strata, stratified sampling
Presence > 5 is occupied
OR
WA
rate
0.5
0.4
0.3
0.2
0.1
0.0
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR

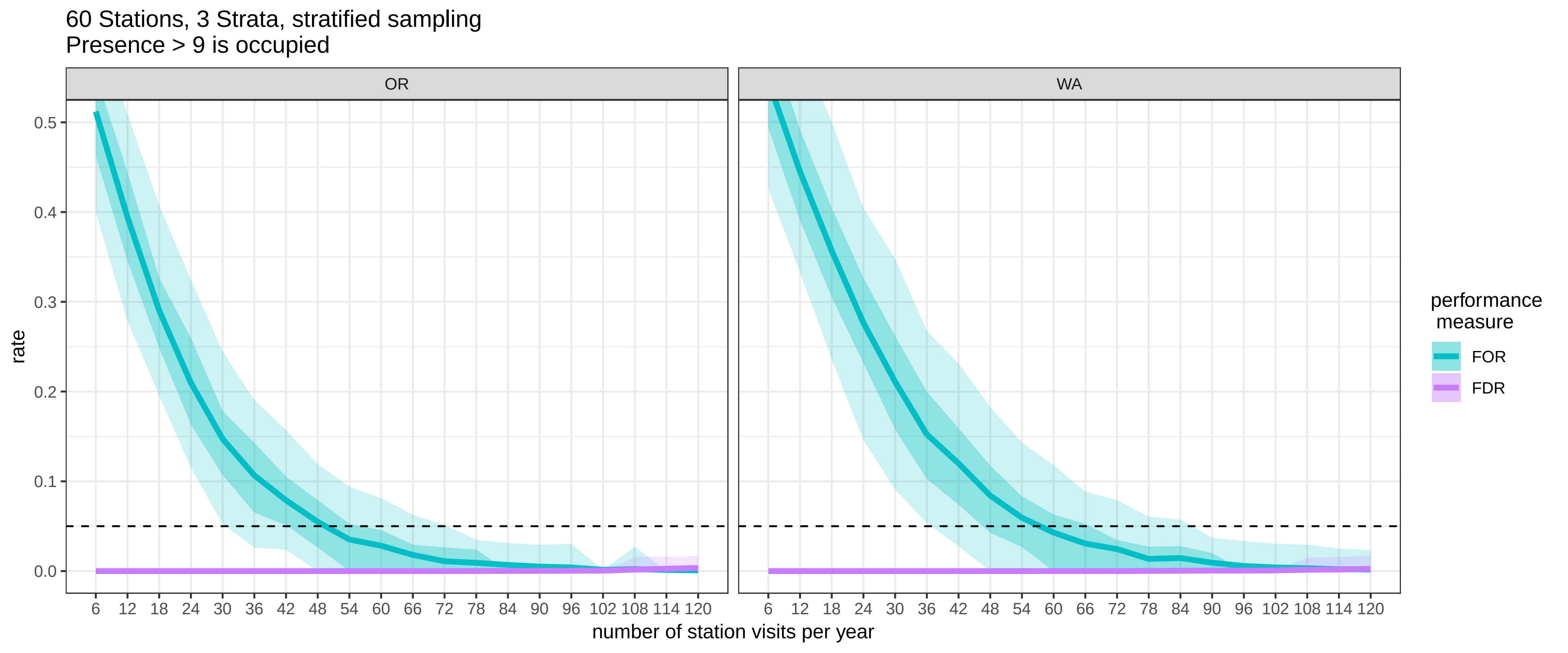

60 Stations, 3 Strata, stratified sampling
Presence > 6 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR

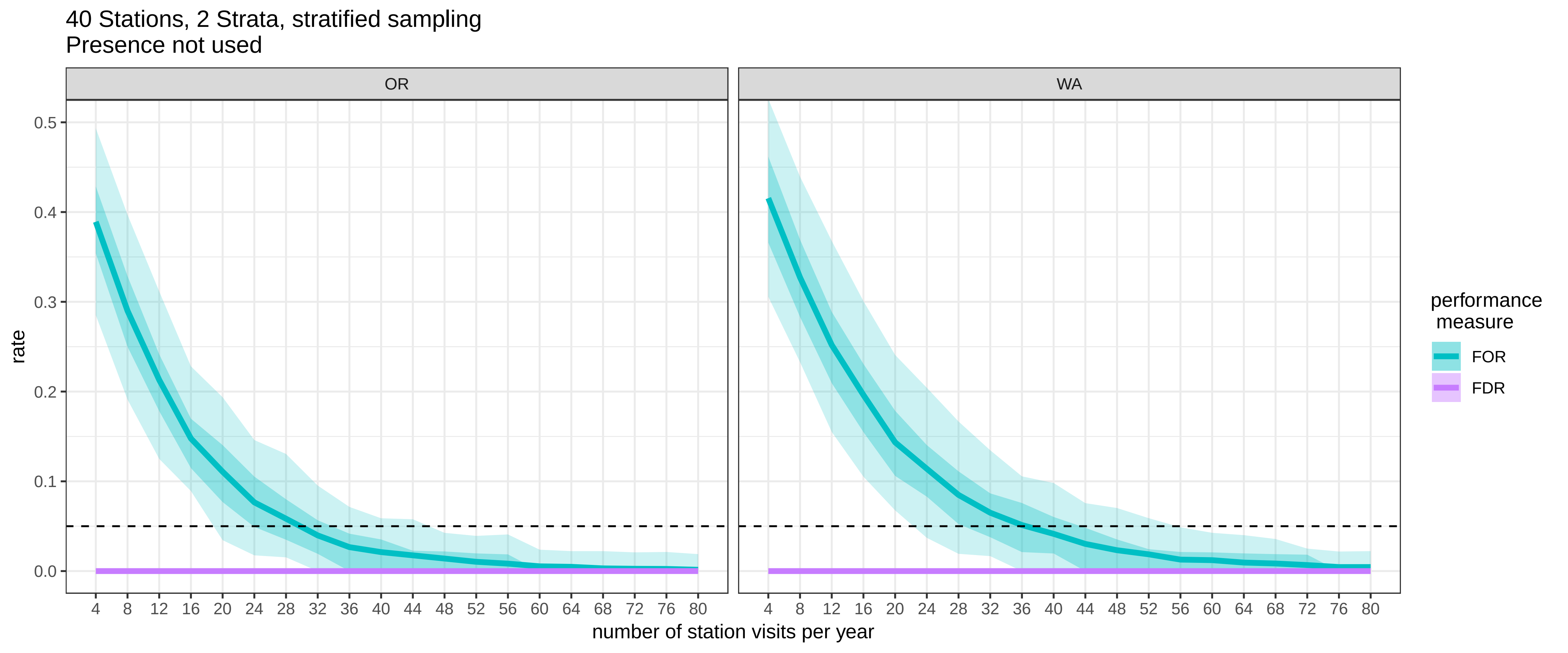


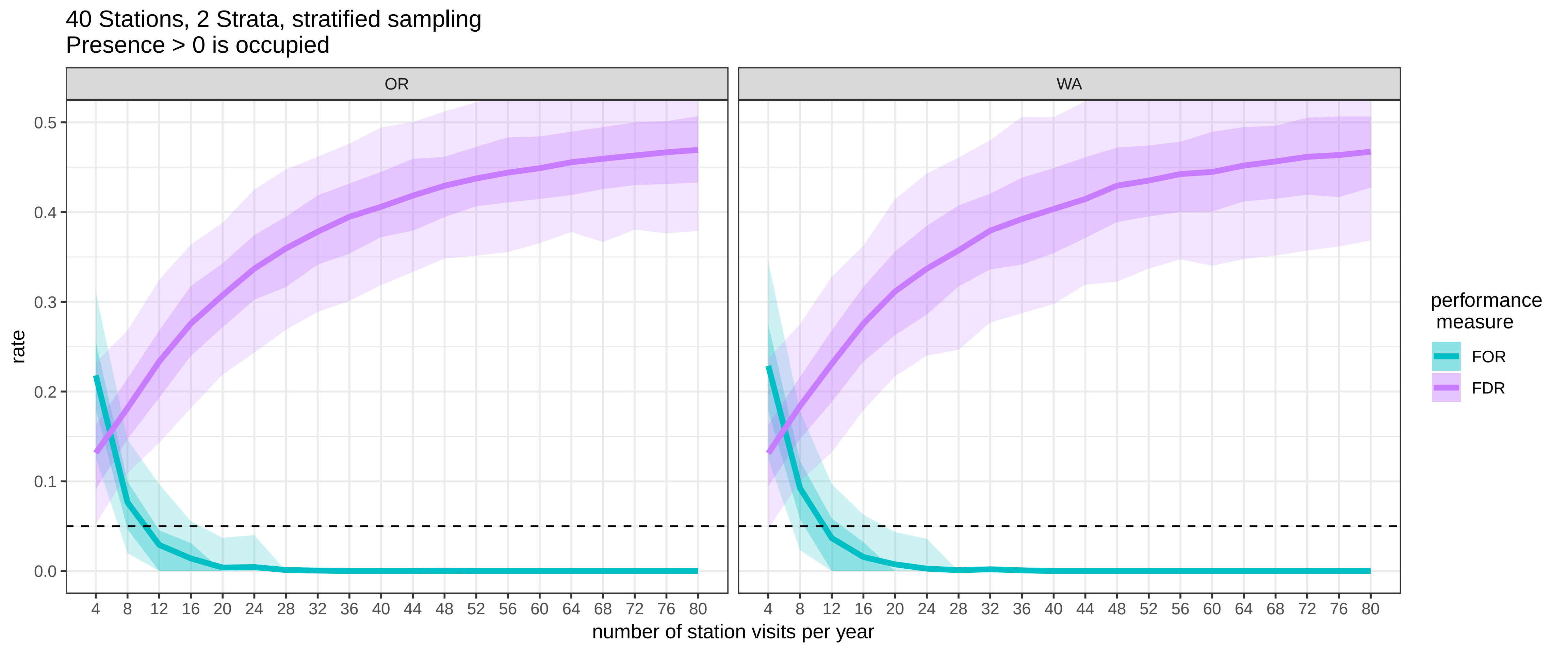
60 Stations, 3 Strata, stratified sampling
Presence > 7 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR

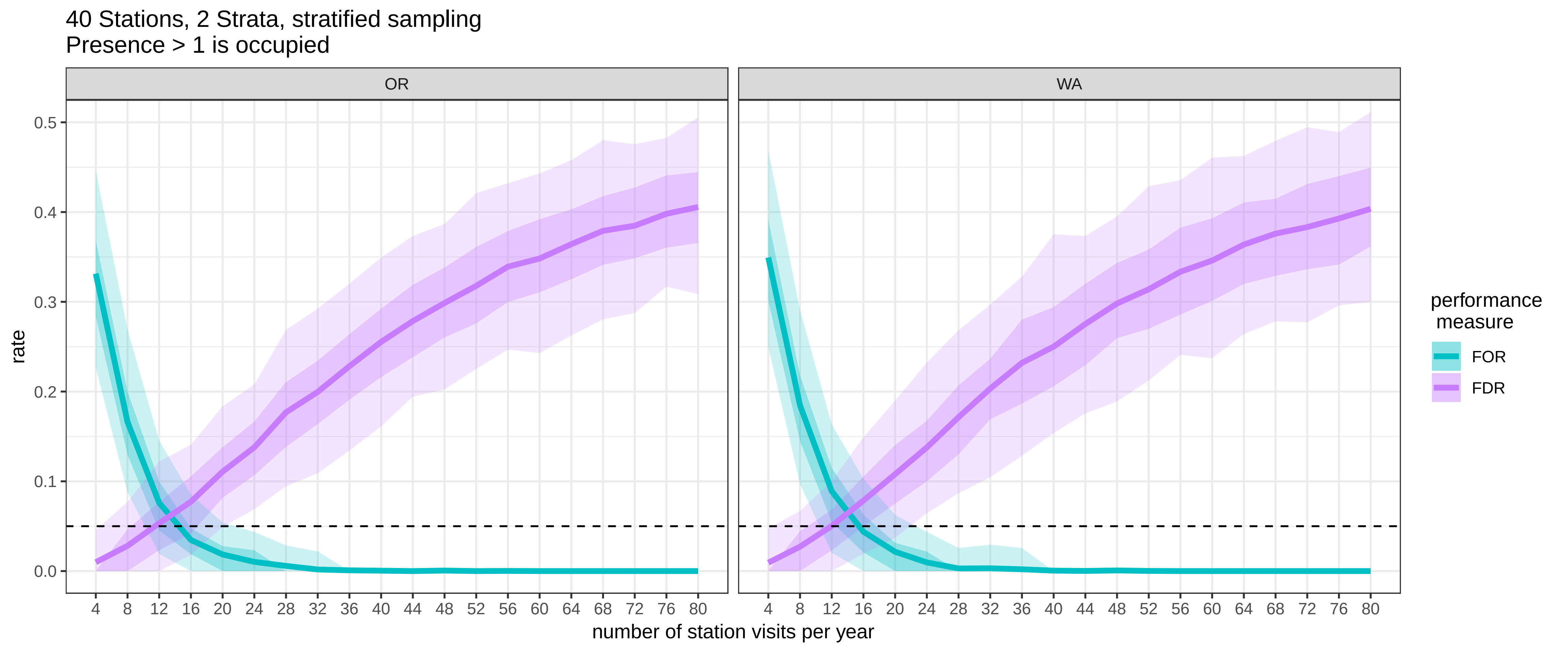


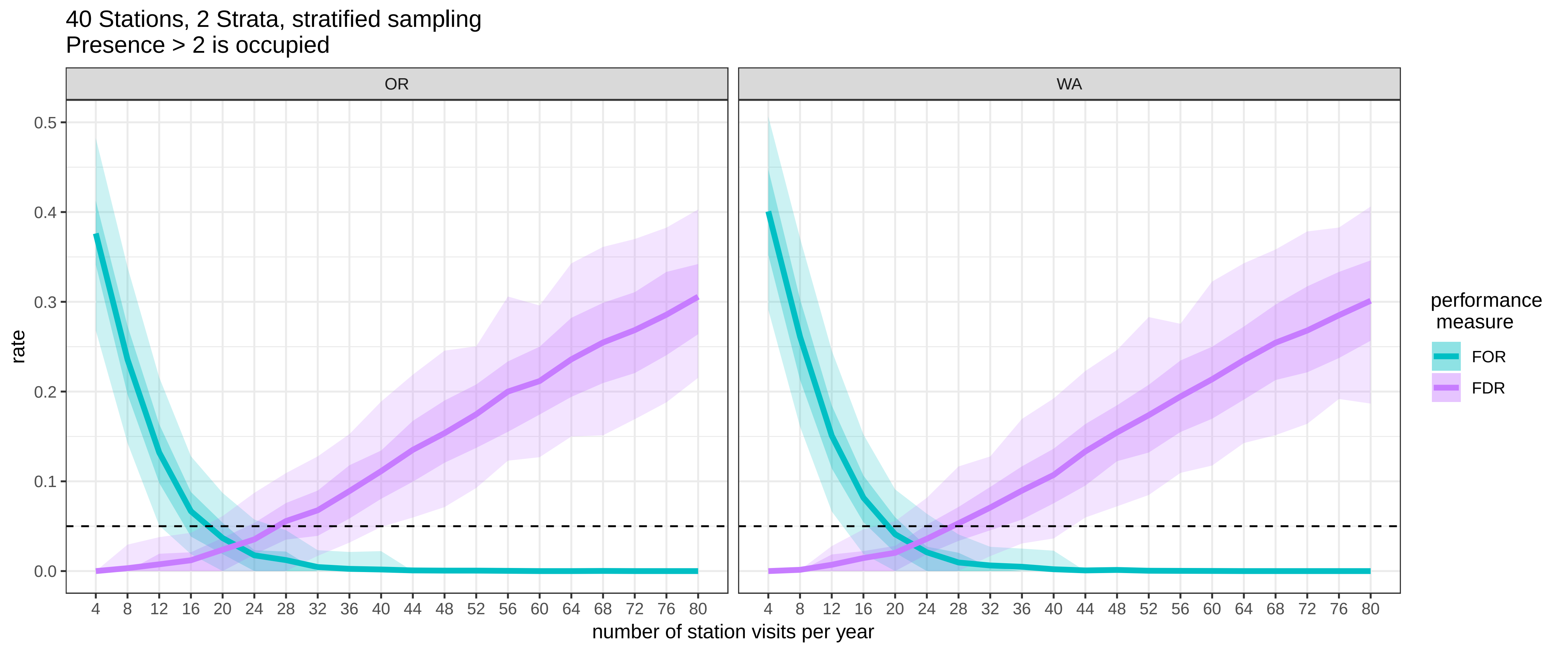
60 Stations, 3 Strata, stratified sampling
Presence > 8 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR


60 Stations, 3 Strata, stratified sampling
Presence > 9 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120
number of station visits per year
performance measure
FOR
FDR

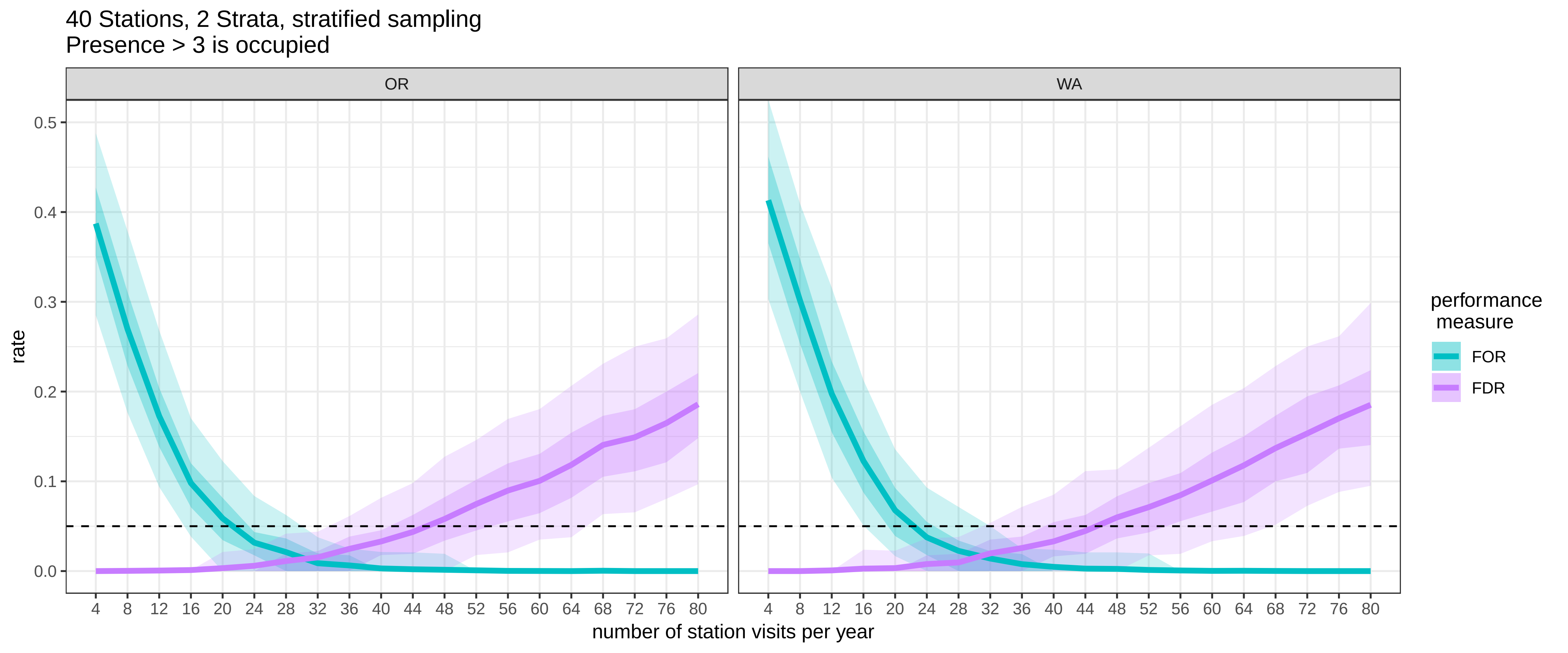

40 Stations, 2 Strata, stratified sampling
Presence not used
OR
WA
rate
0.5
0.4
0.3
0.2
0.1
0.0
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FOR
FDR

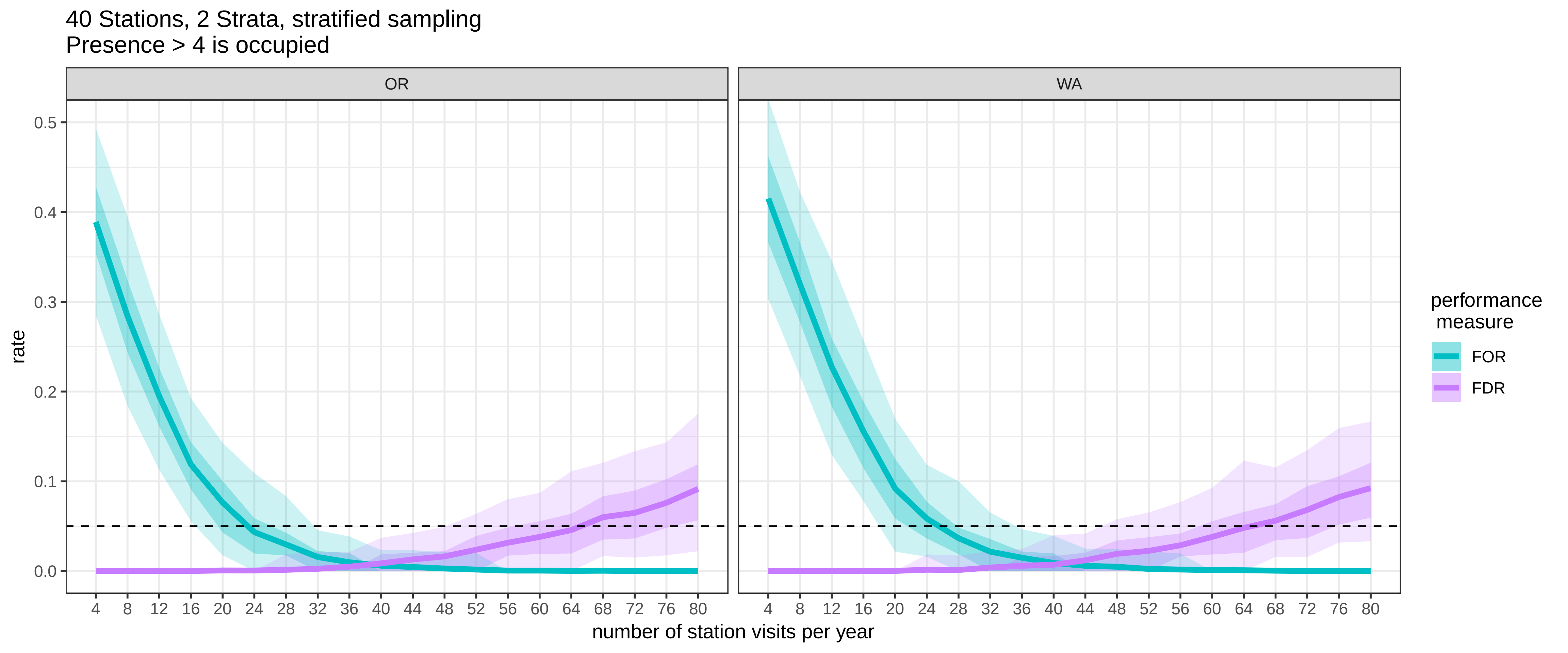

40 Stations, 2 Strata, stratified sampling
Presence > 0 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80
number of station visits per year
performance measure
FOR
FDR


40 Stations, 2 Strata, stratified sampling
Presence > 1 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FOR
FDR

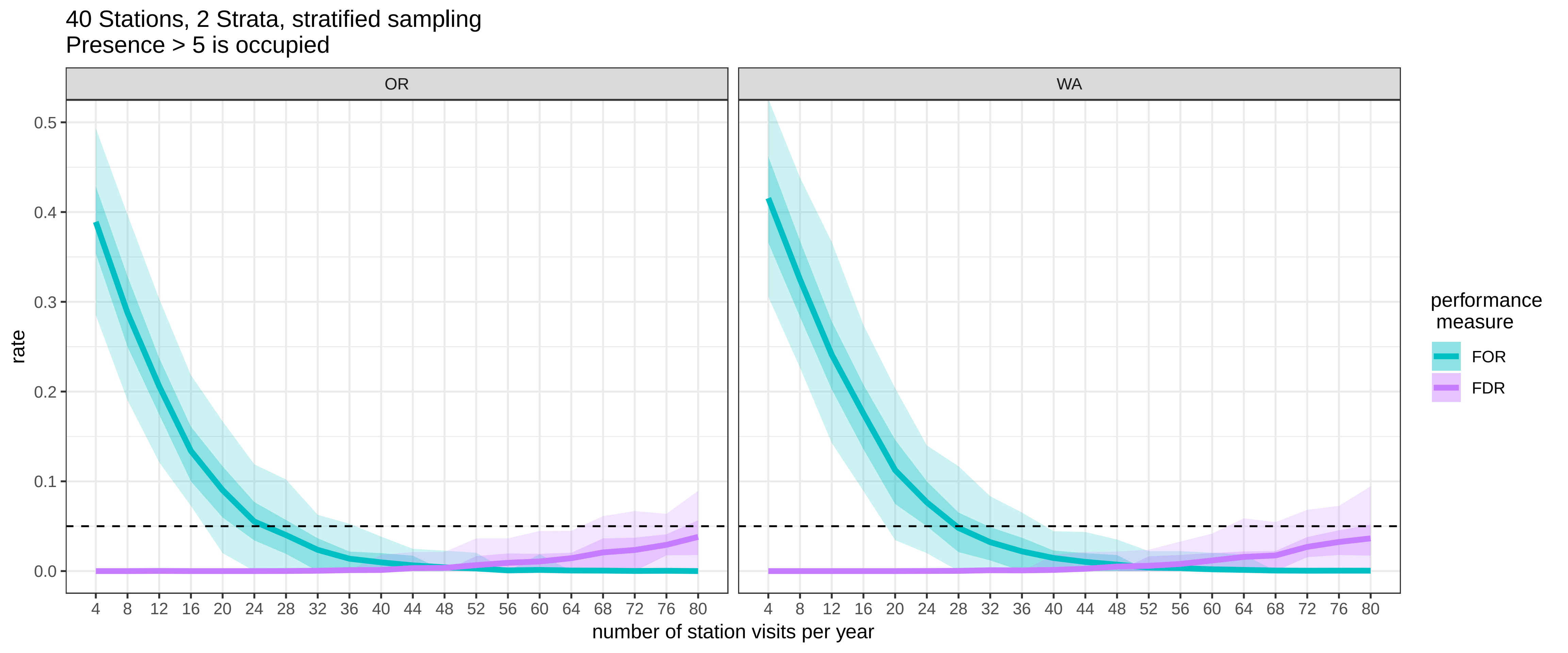


40 Stations, 2 Strata, stratified sampling
Presence > 2 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80
number of station visits per year
performance measure
FOR
FDR

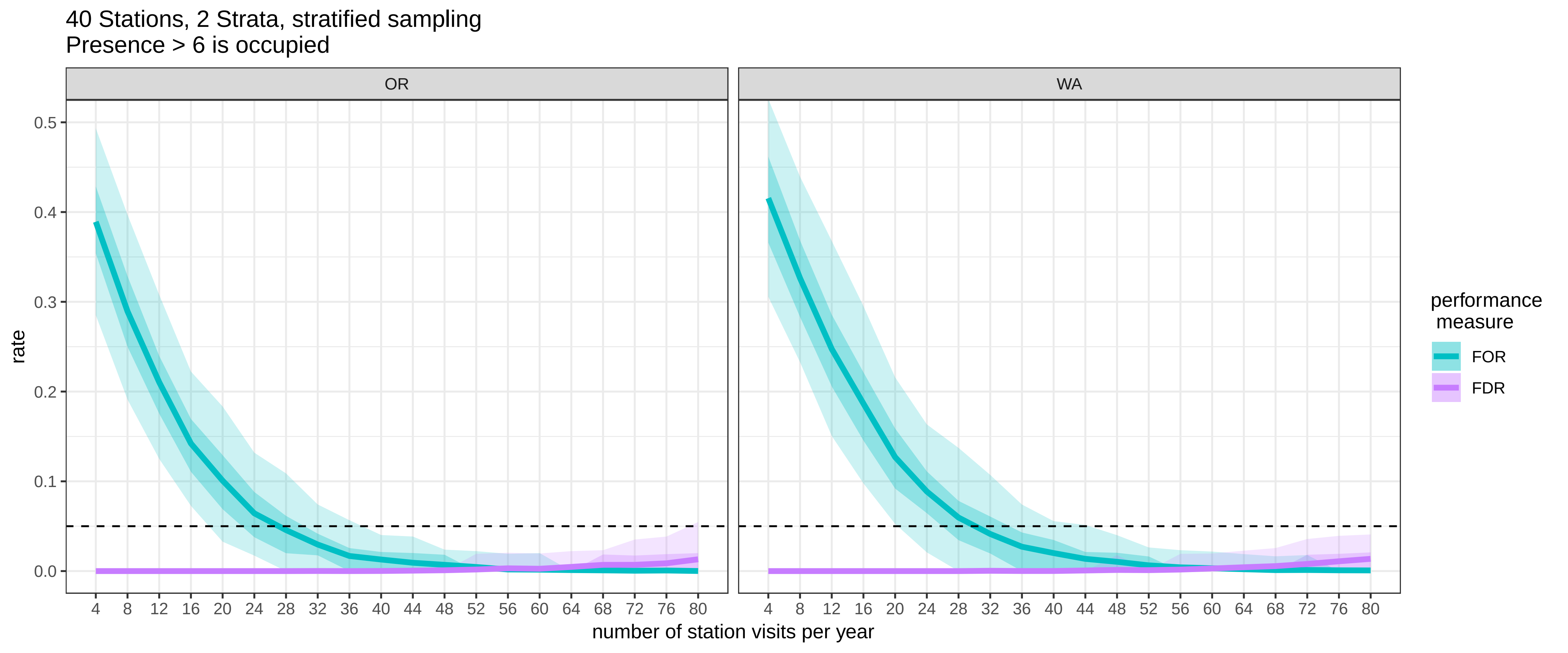

40 Stations, 2 Strata, stratified sampling
Presence > 3 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80
number of station visits per year
performance measure
FOR
FDR

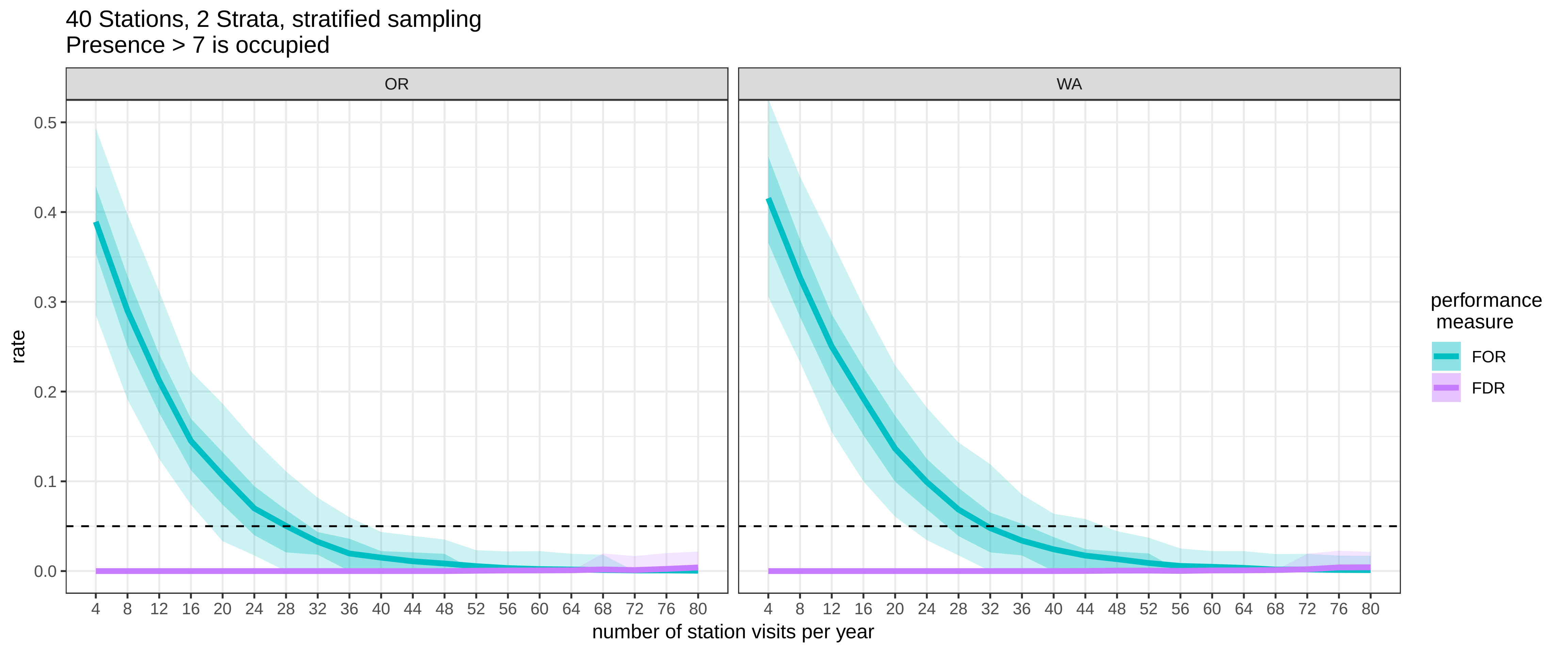


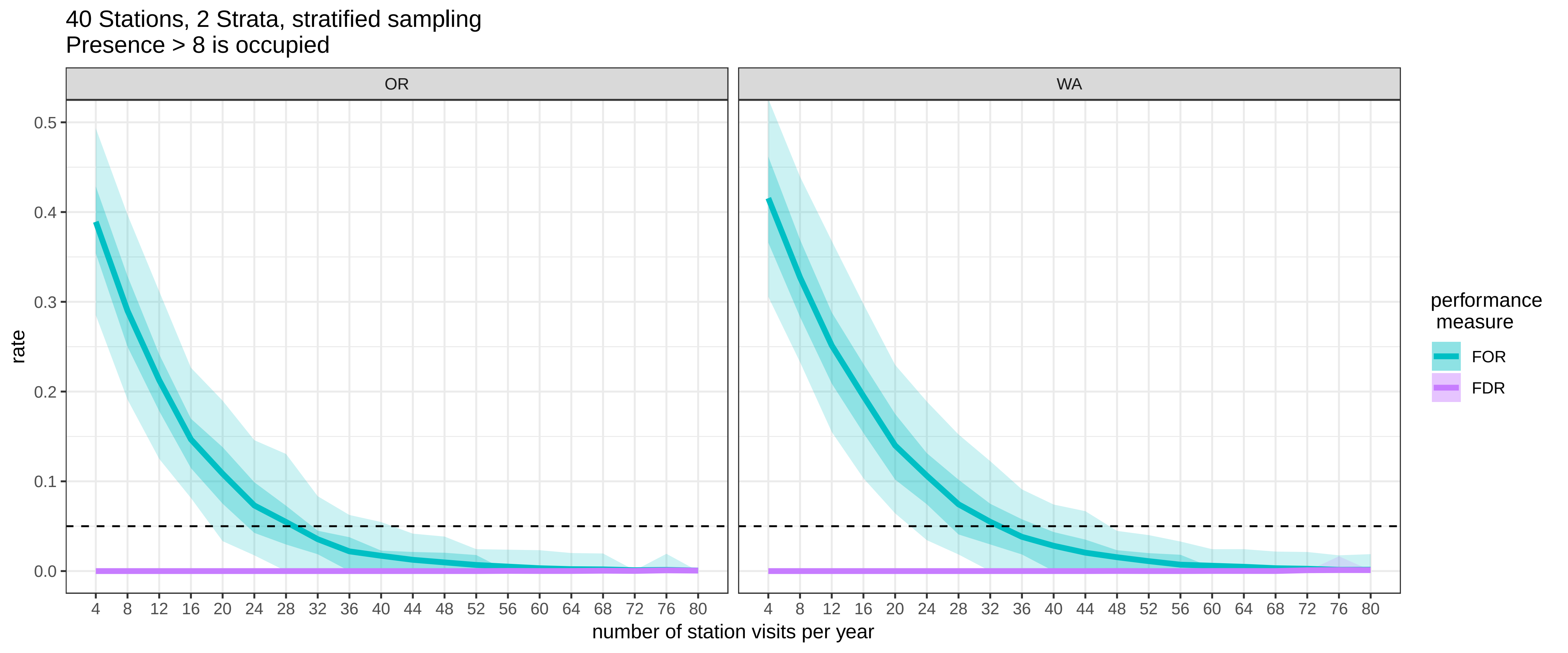
40 Stations, 2 Strata, stratified sampling
Presence > 4 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80
number of station visits per year
performance measure
FOR
FDR



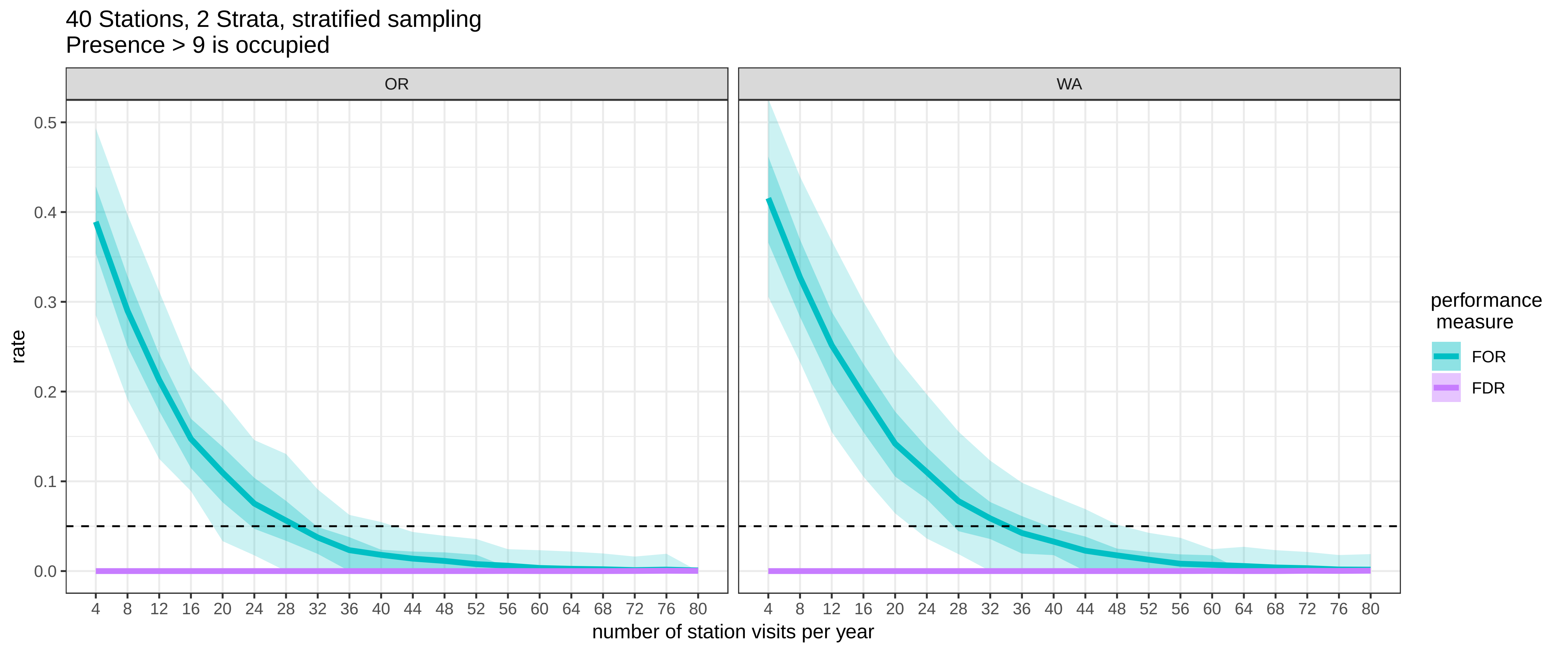
40 Stations, 2 Strata, stratified sampling
Presence > 5 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80
number of station visits per year
performance measure
FOR
FDR


40 Stations, 2 Strata, stratified sampling
Presence > 6 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80
number of station visits per year
performance measure
FOR
FDR


40 Stations, 2 Strata, stratified sampling
Presence > 7 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80
number of station visits per year
performance measure
FOR
FDR



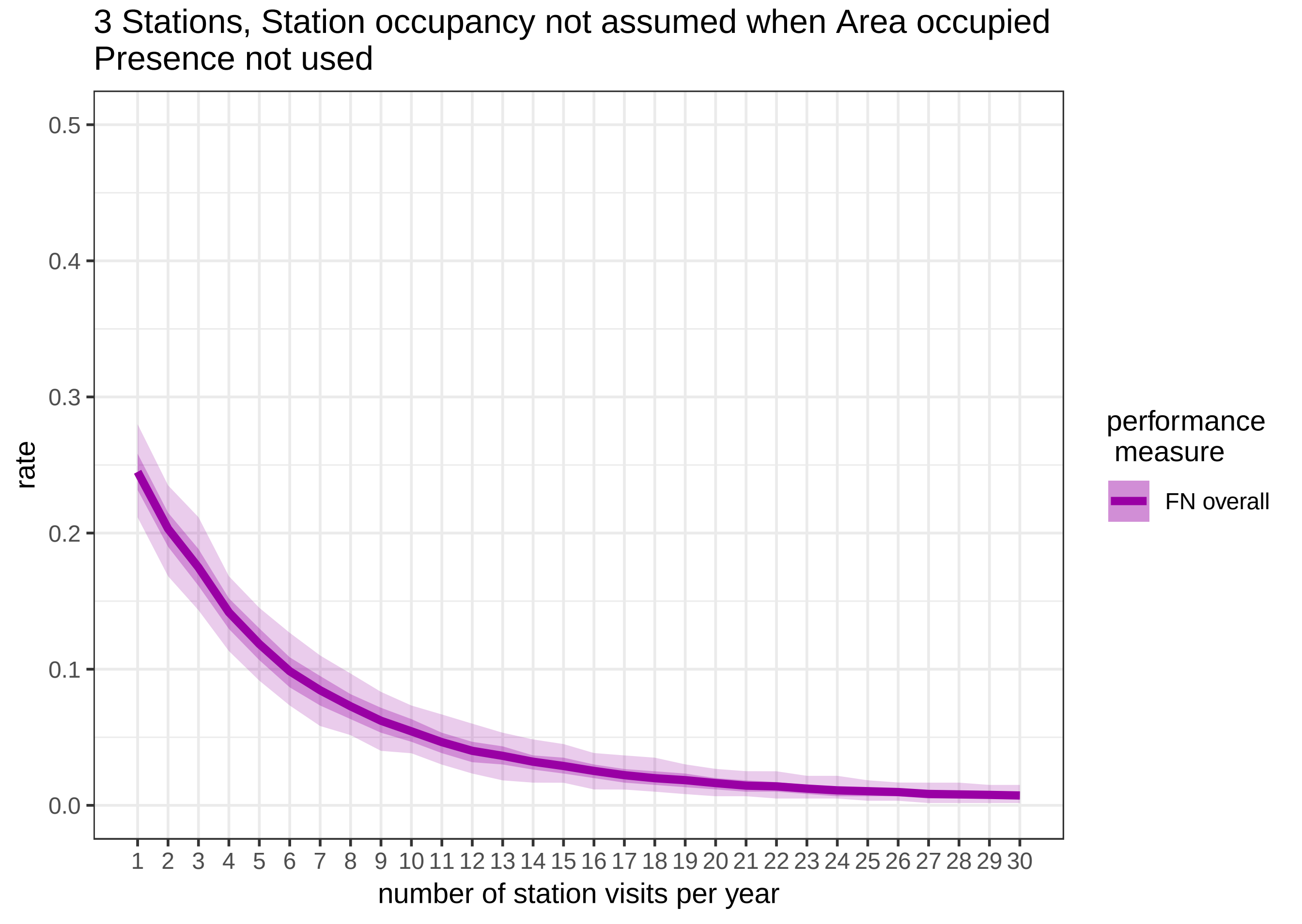
40 Stations, 2 Strata, stratified sampling
Presence > 8 is occupied
OR
WA
rate
0.0
0.1
0.2
0.3
0.4
0.5
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FOR
FDR

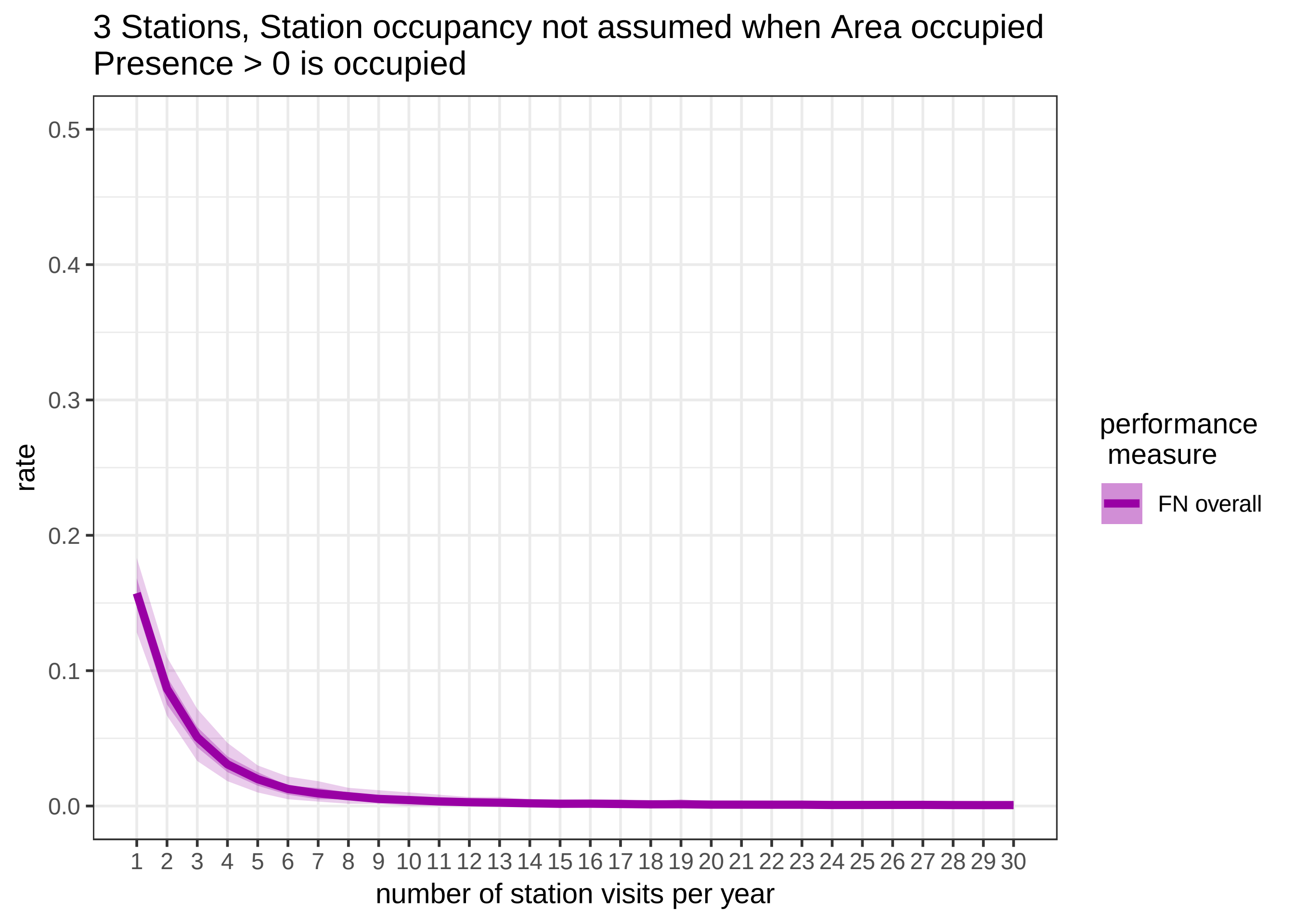


40 Stations, 2 Strata, stratified sampling
Presence > 9 is occupied
OR
WA
rate
0.5
0.4
0.3
0.2
0.1
0.0
4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80
number of station visits per year
performance measure
FOR
FDR

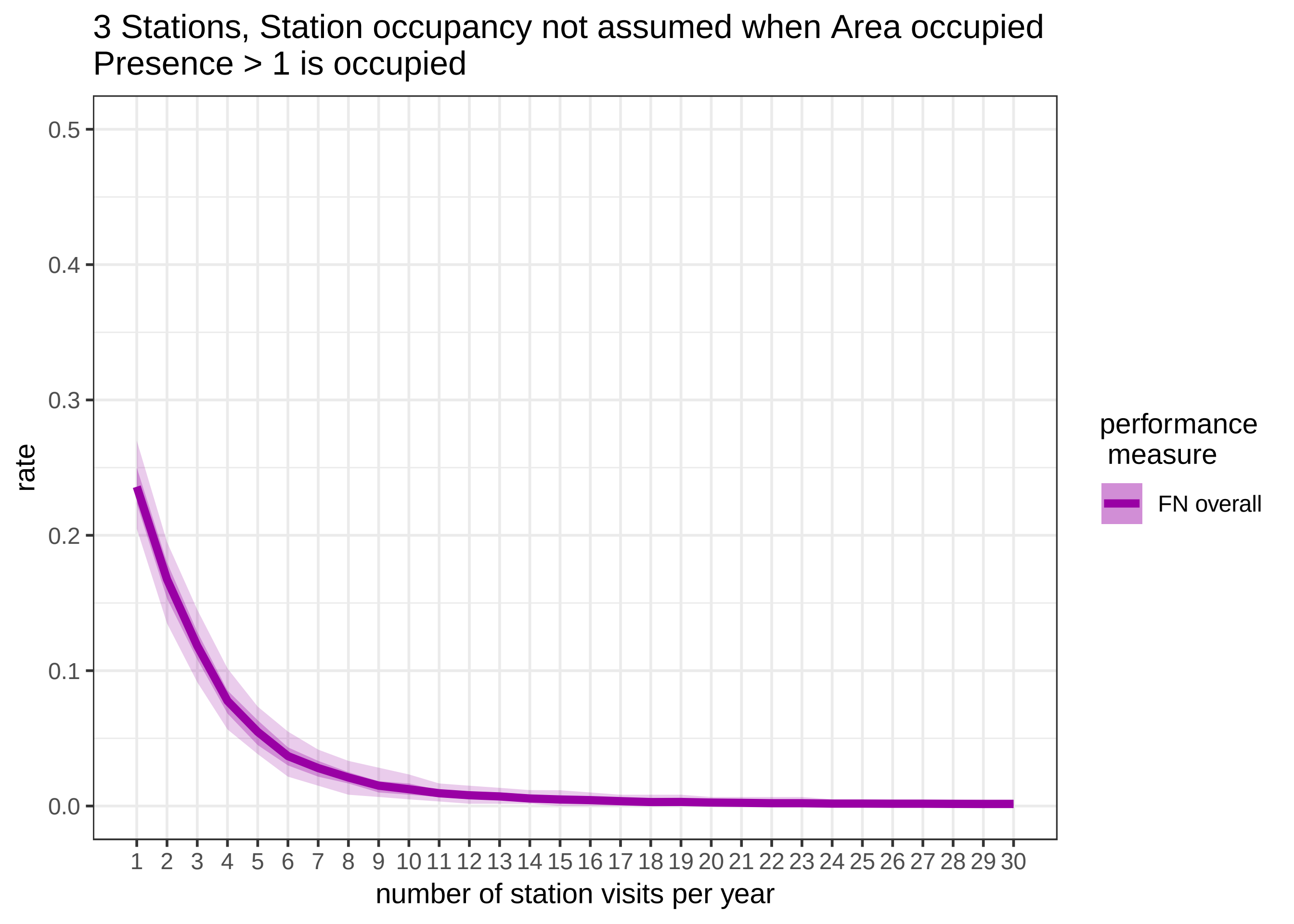
Figures with FN

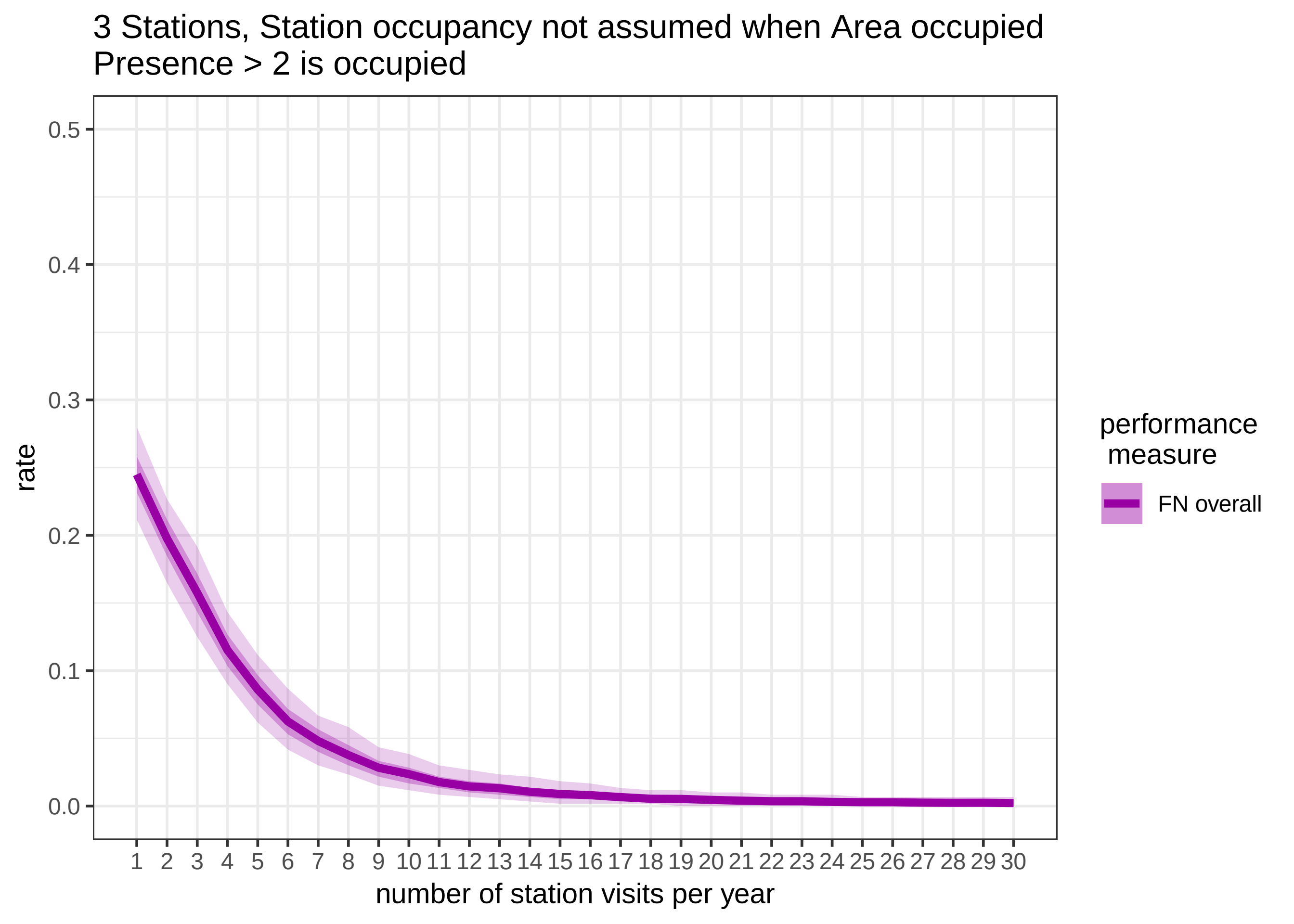
Below are figures containing simulation results for the overall proportion of false negatives. In other words: the expected proportion of all surveyed Areas that are classified as “not occupied” but are in fact occupied.


3 Stations, Station occupancy not assumed when Area occupied
Presence not used
rate
0.0
0.1
0.2
0.3
0.4
0.5
number of station visits per year
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
performance measure
FN overall



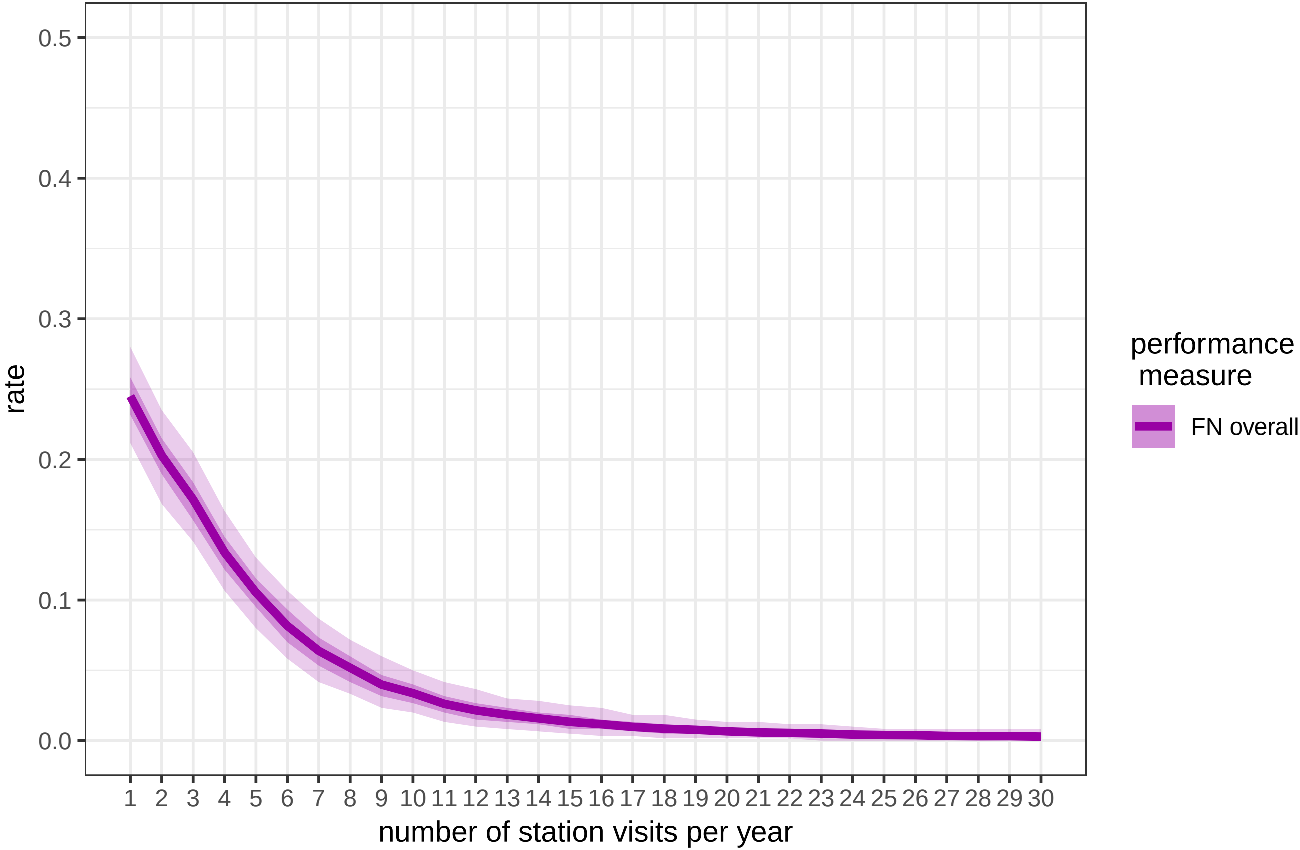
3 Stations, Station occupancy not assumed when Area occupied
Presence > 0 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

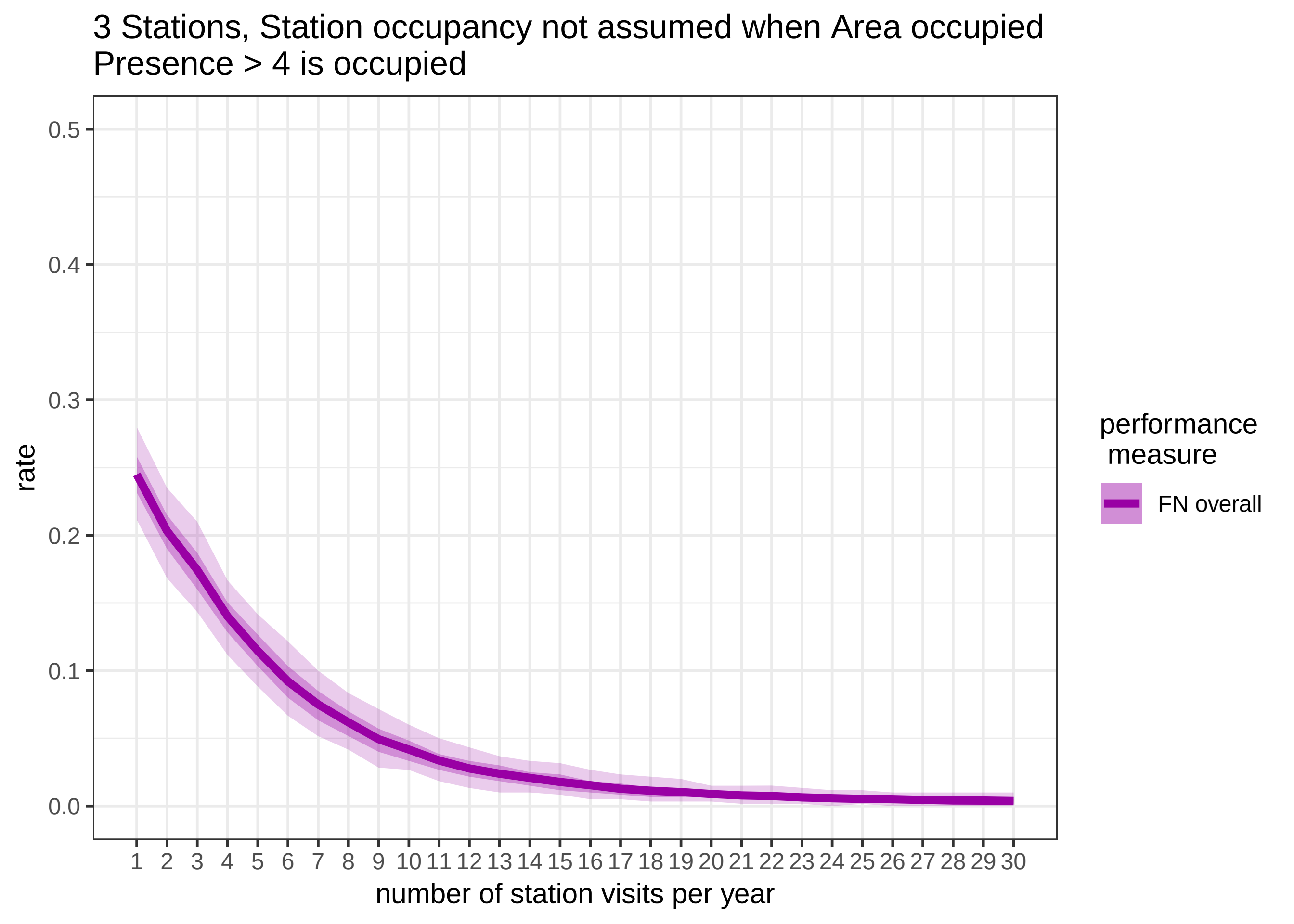

3 Stations, Station occupancy not assumed when Area occupied
Presence > 1 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall



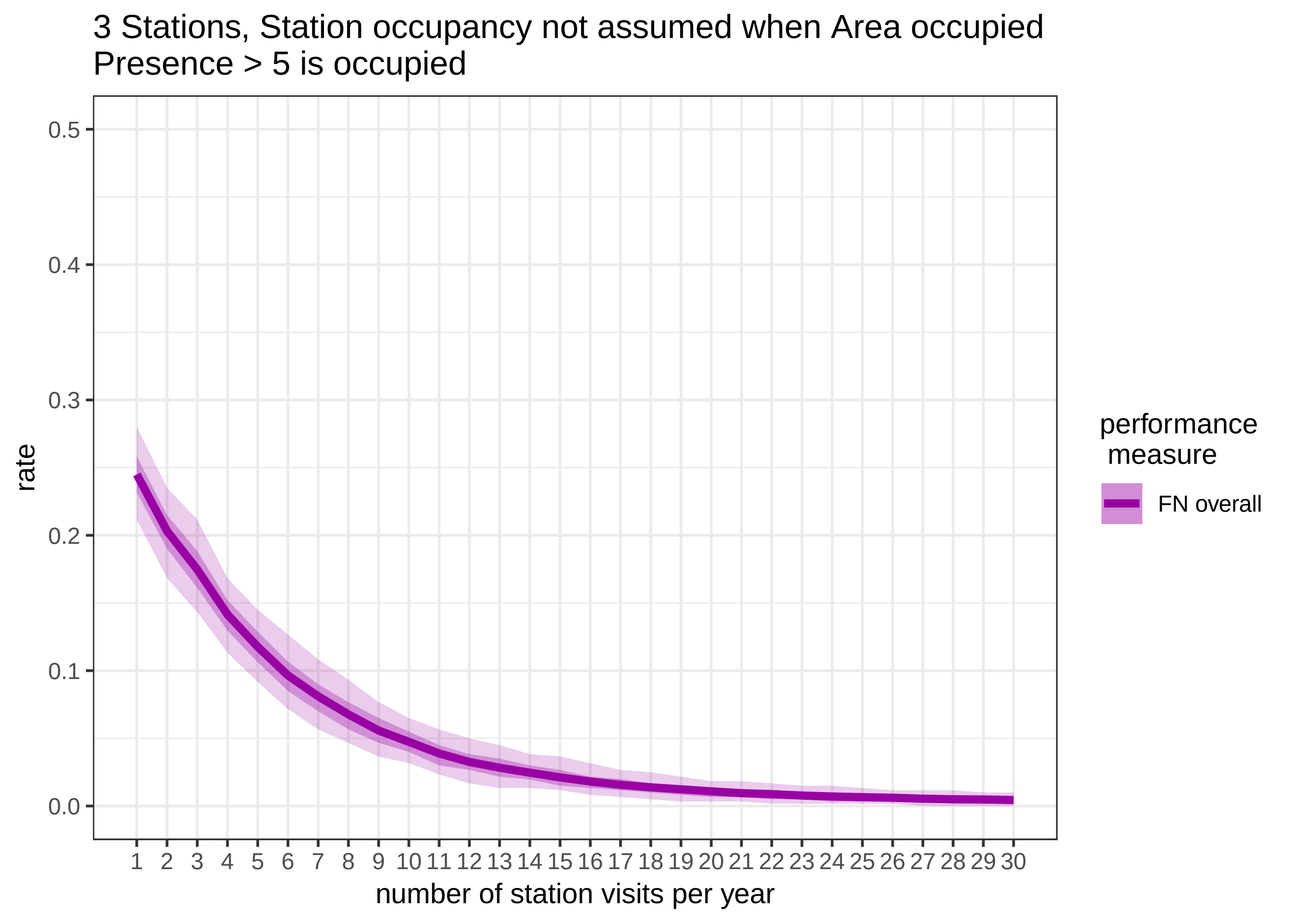
3 Stations, Station occupancy not assumed when Area occupied
Presence > 2 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

3 Stations, Station occupancy not assumed when Area occupied
Presence > 3 is occupied

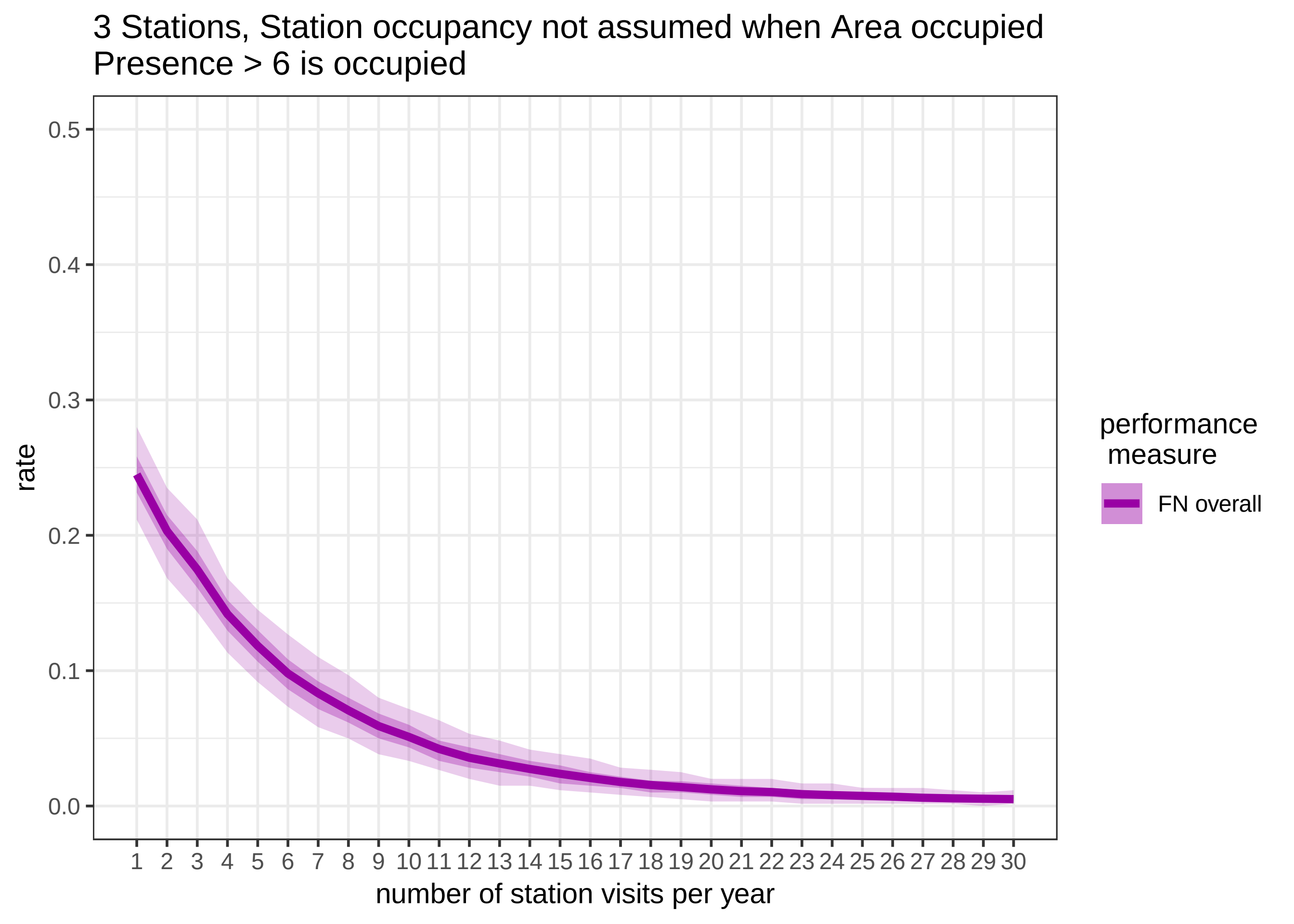




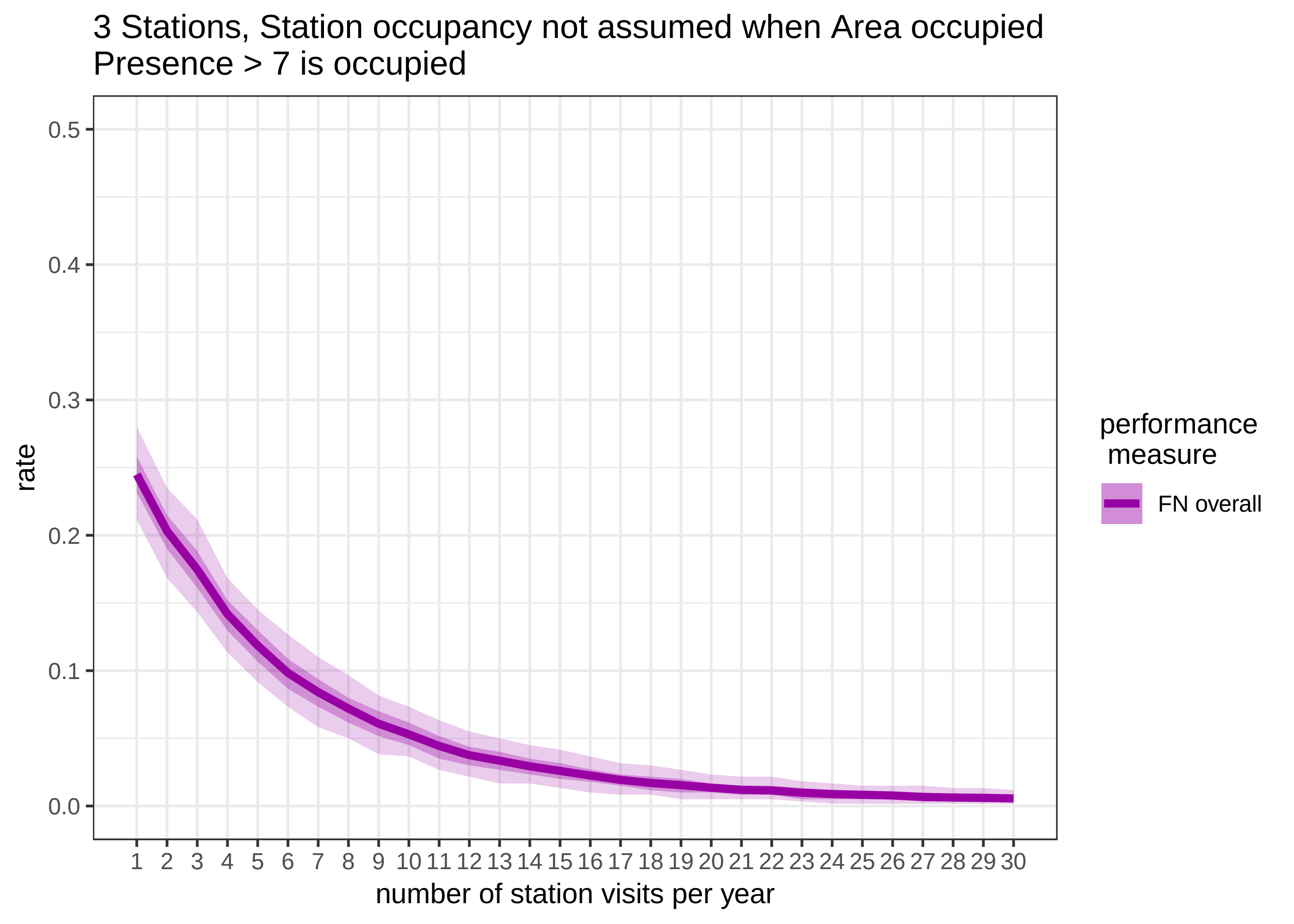
3 Stations, Station occupancy not assumed when Area occupied
Presence > 4 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

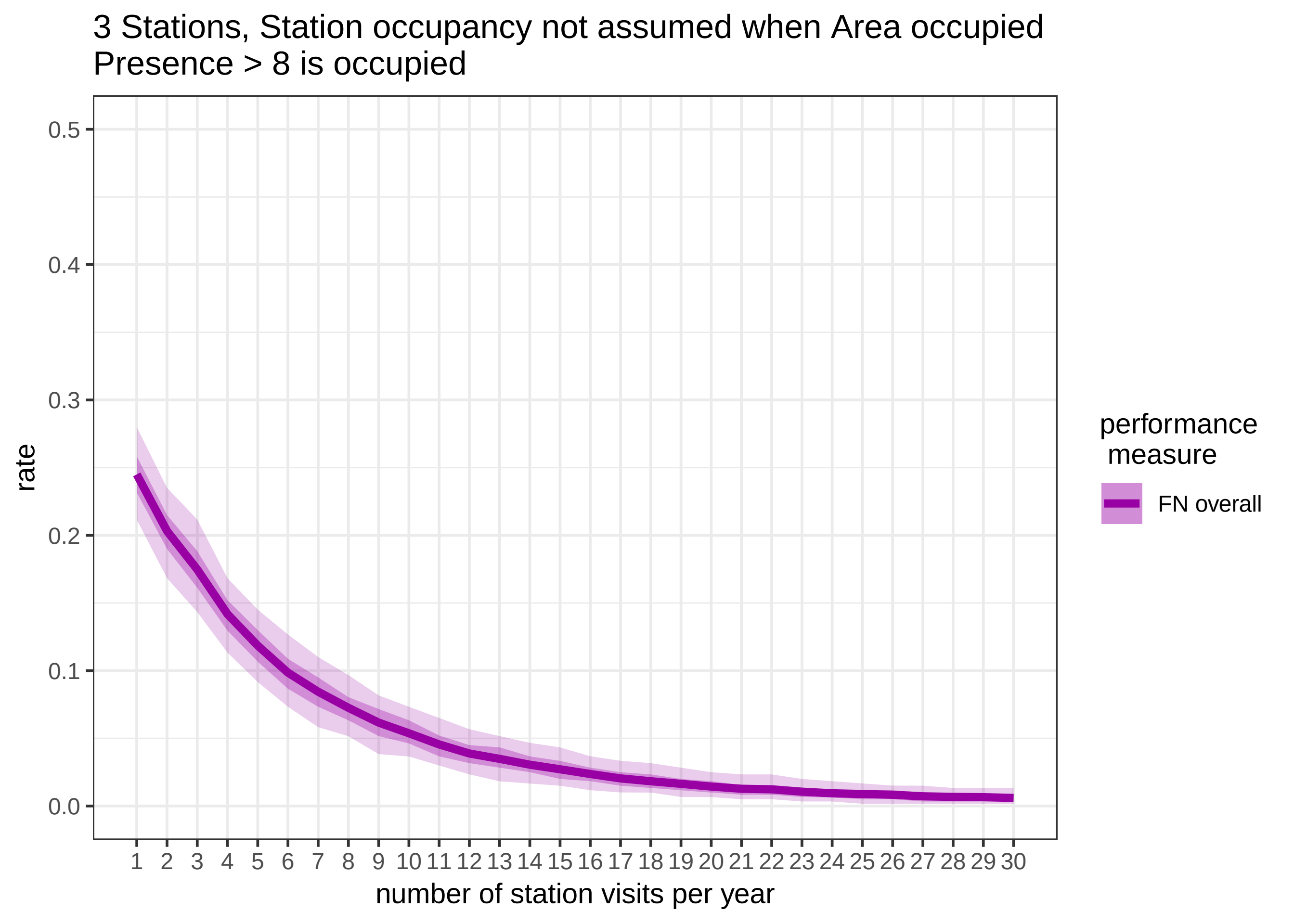


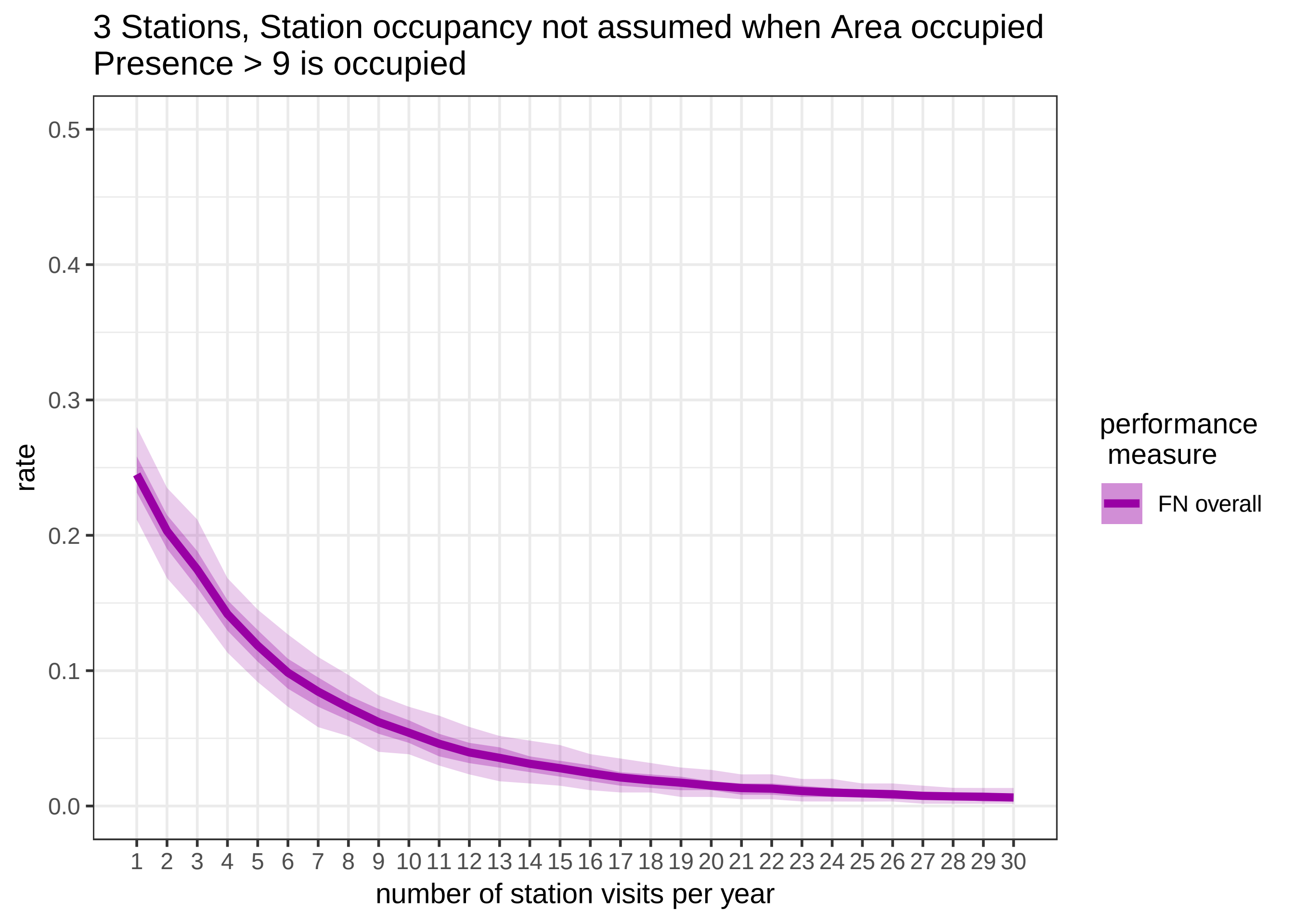
3 Stations, Station occupancy not assumed when Area occupied
Presence > 5 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall



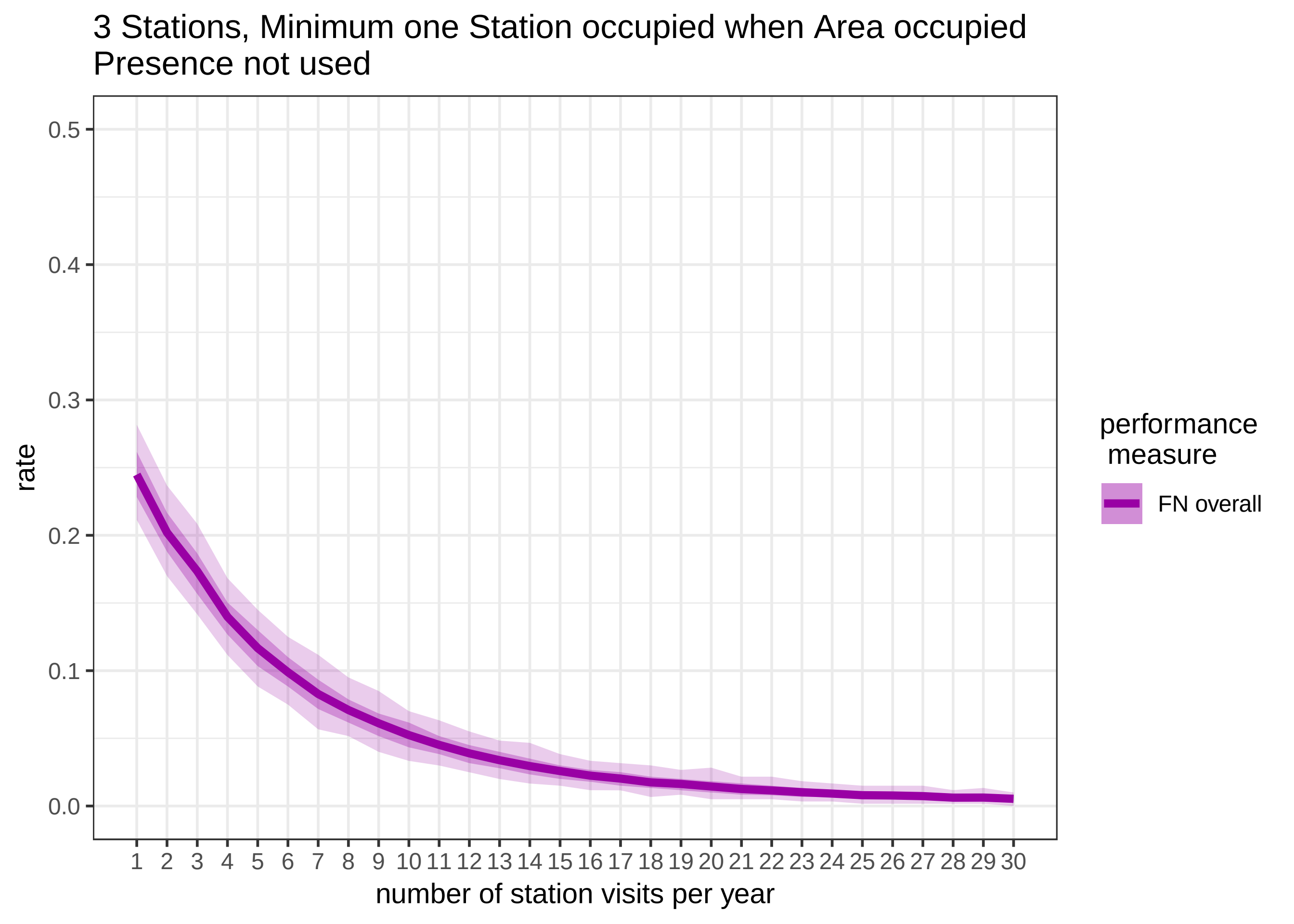
3 Stations, Station occupancy not assumed when Area occupied
Presence > 6 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

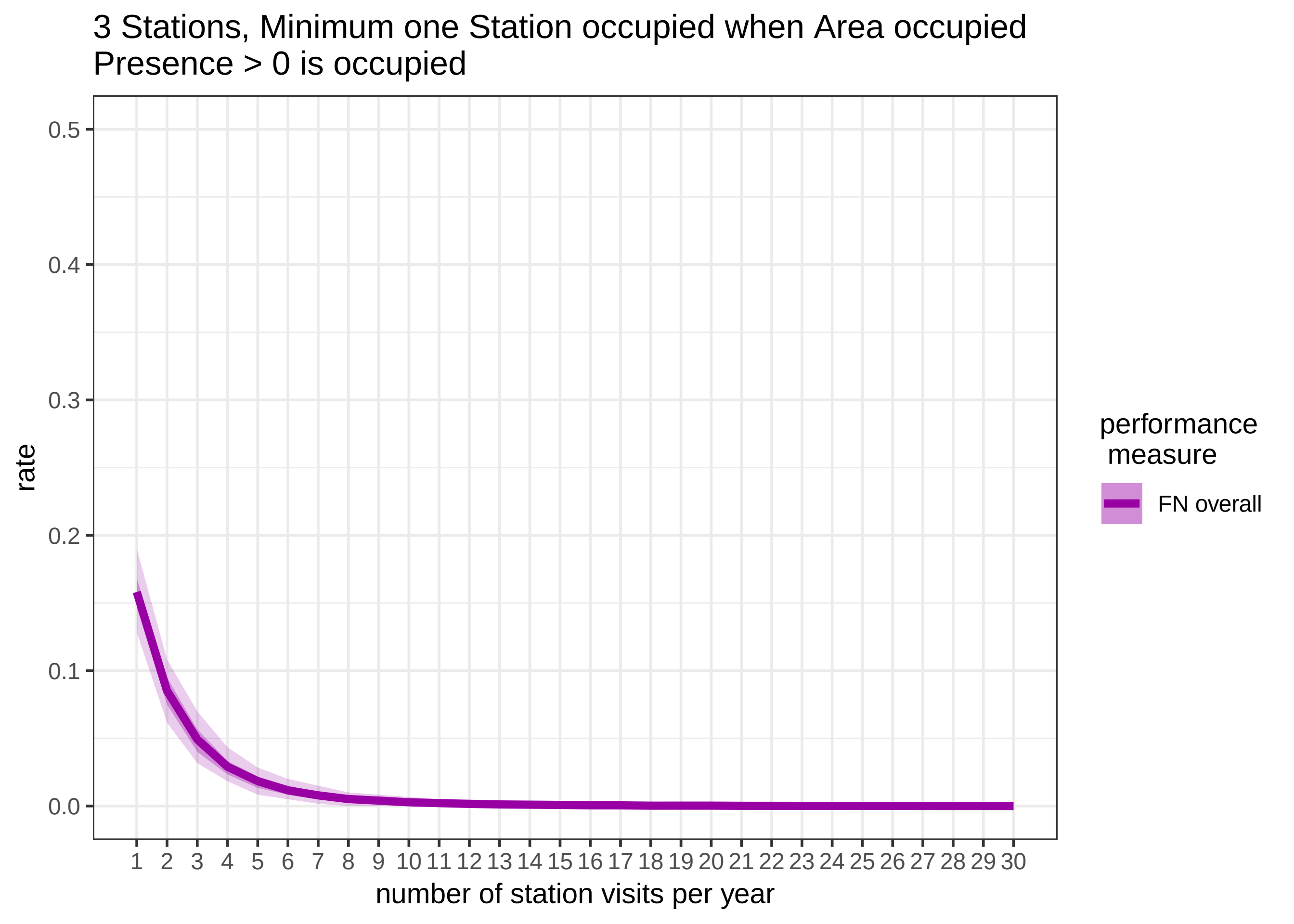

3 Stations, Station occupancy not assumed when Area occupied
Presence > 7 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

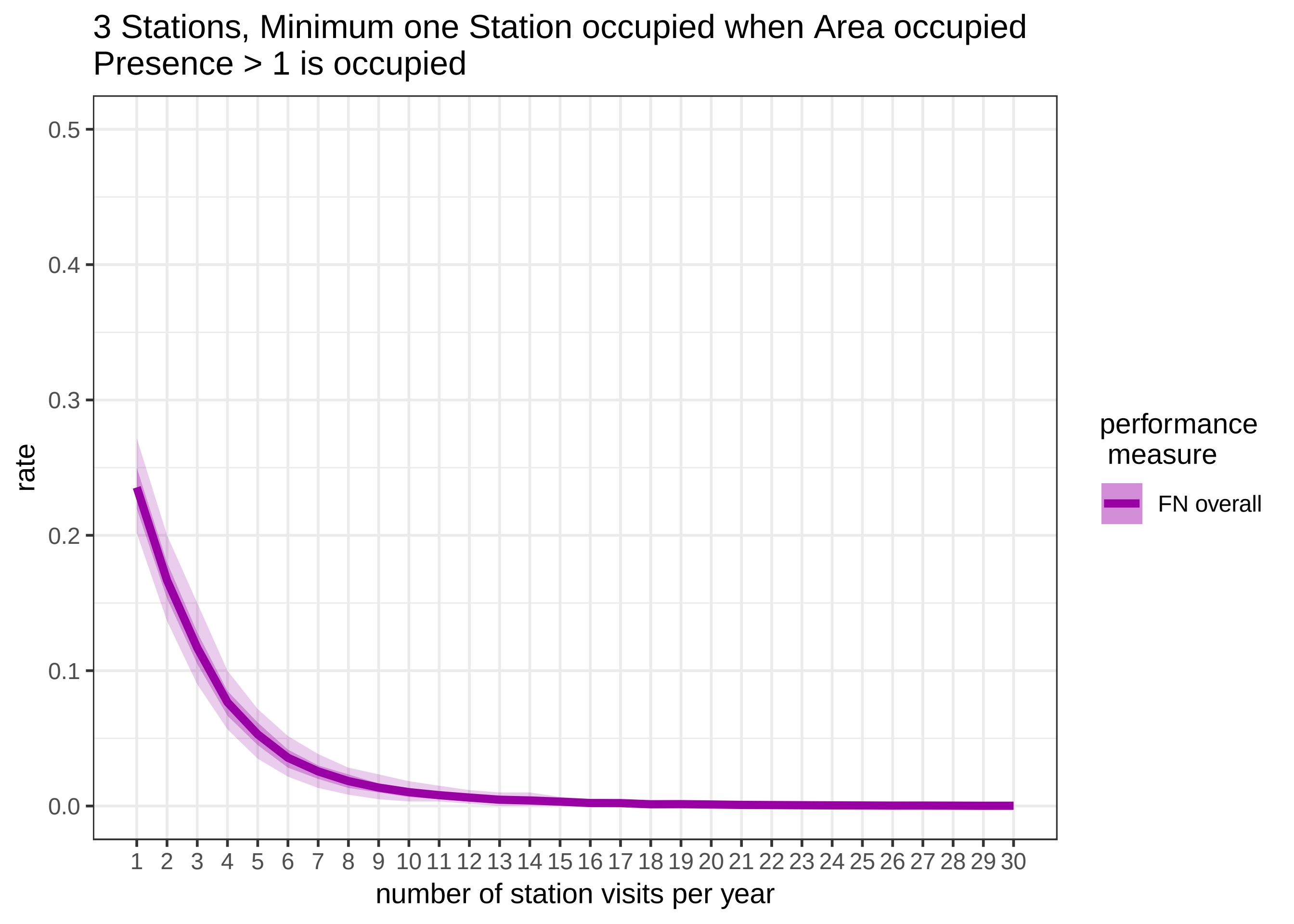

3 Stations, Station occupancy not assumed when Area occupied
Presence > 8 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

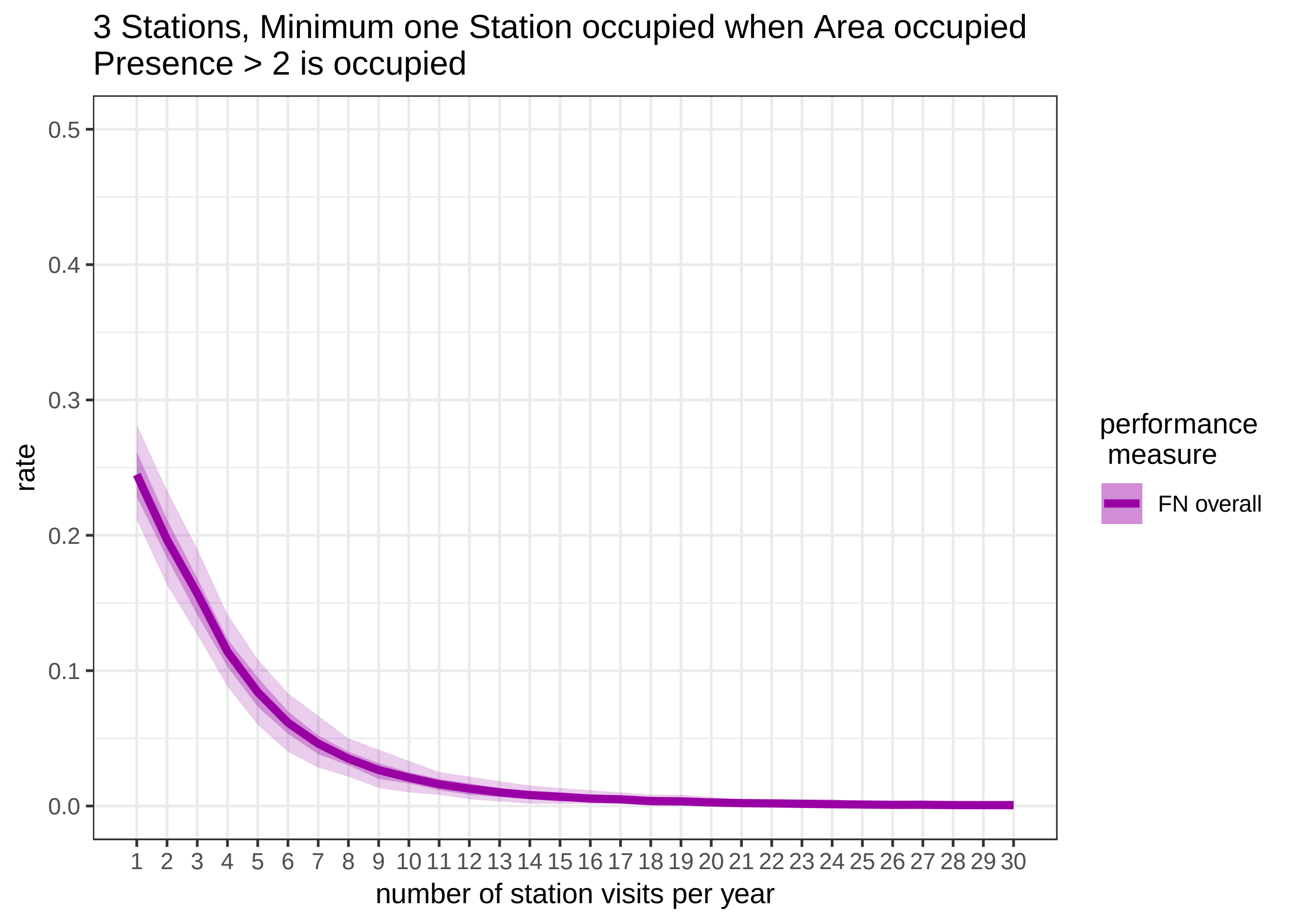


3 Stations, Station occupancy not assumed when Area occupied
Presence > 9 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

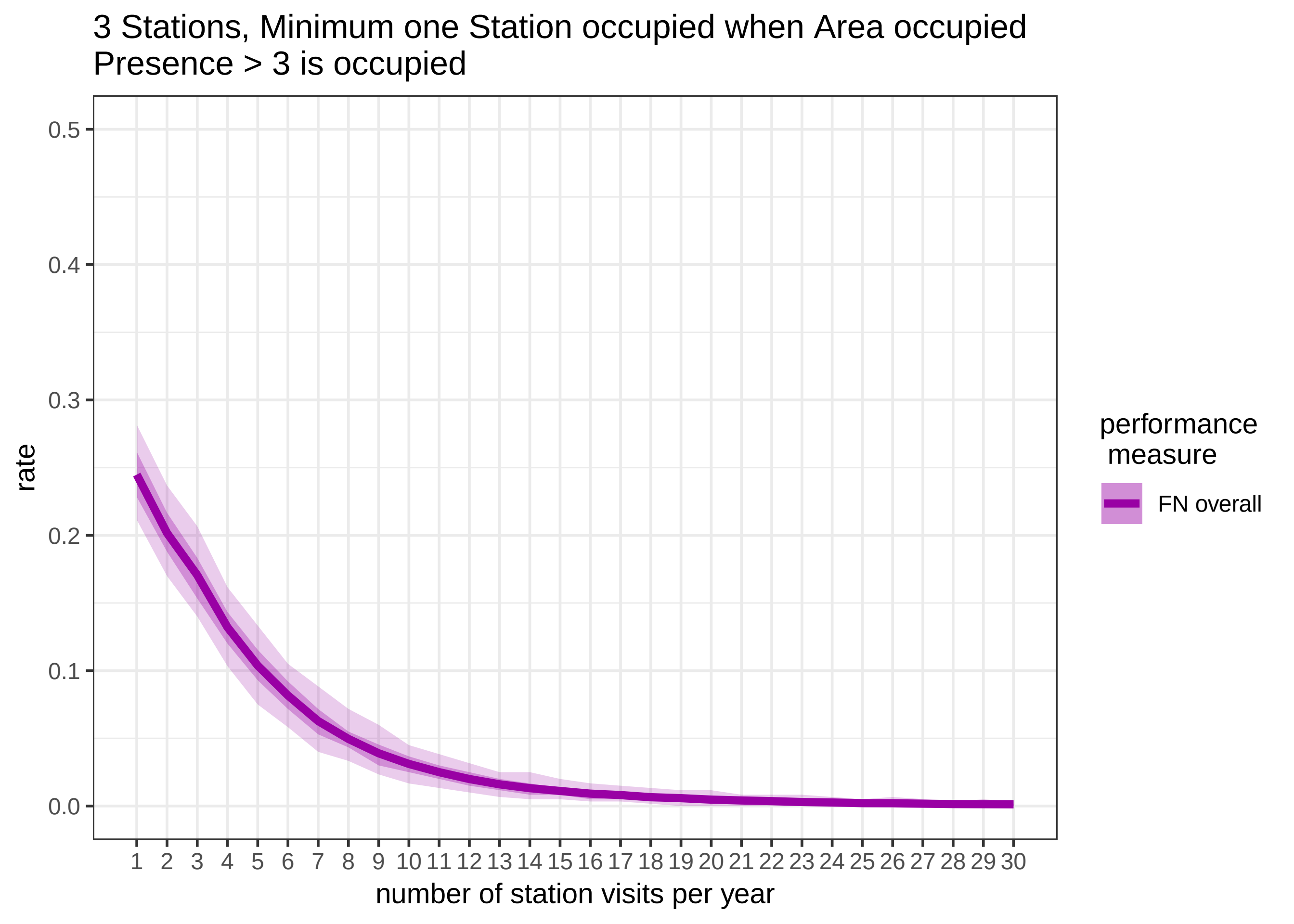

3 Stations, Minimum one Station occupied when Area occupied
Presence not used
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

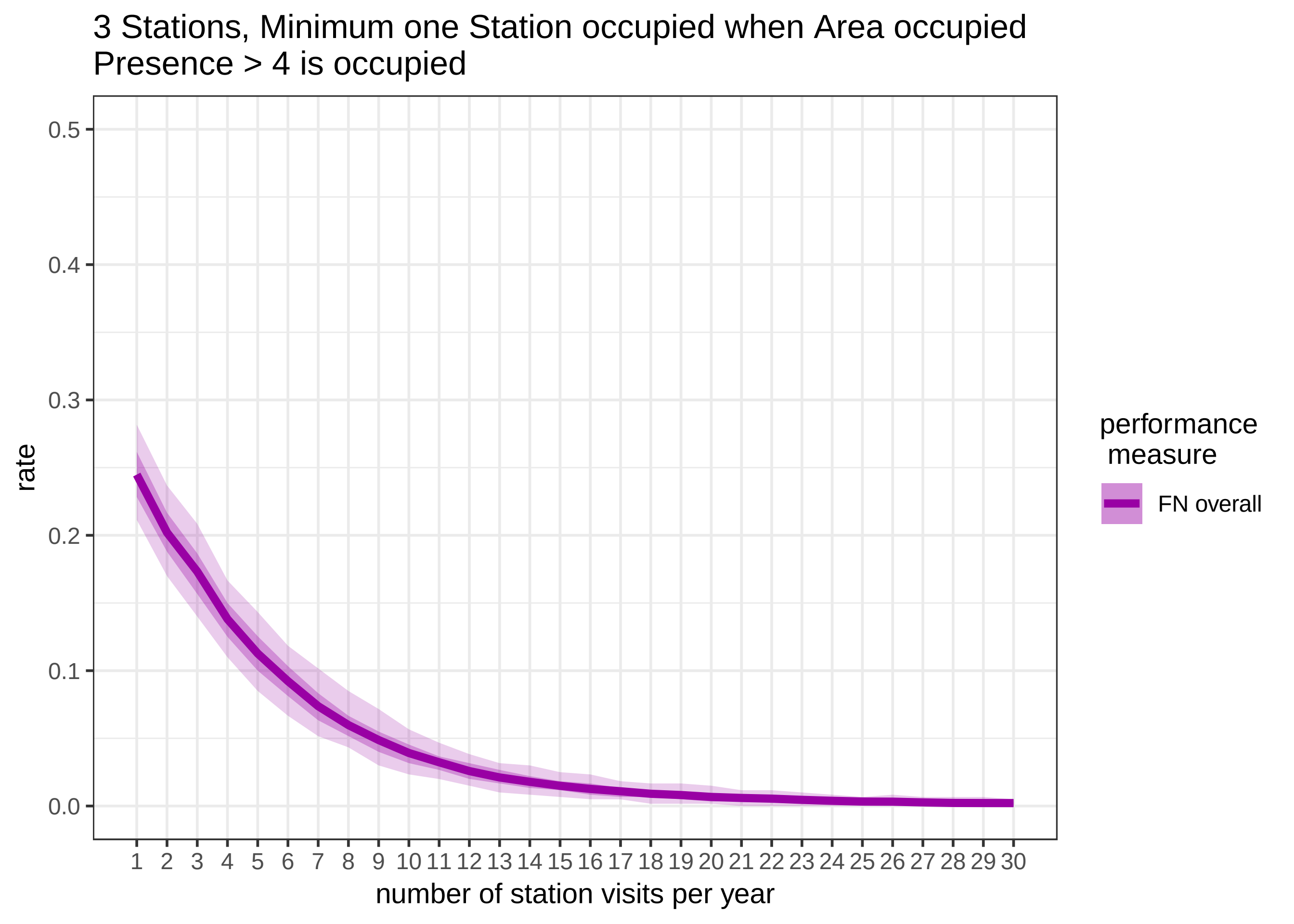

3 Stations, Minimum one Station occupied when Area occupied
Presence > 0 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance
measure
FN overall


3 Stations, Minimum one Station occupied when Area occupied
Presence > 1 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
number of station visits per year
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
performance measure
FN overall

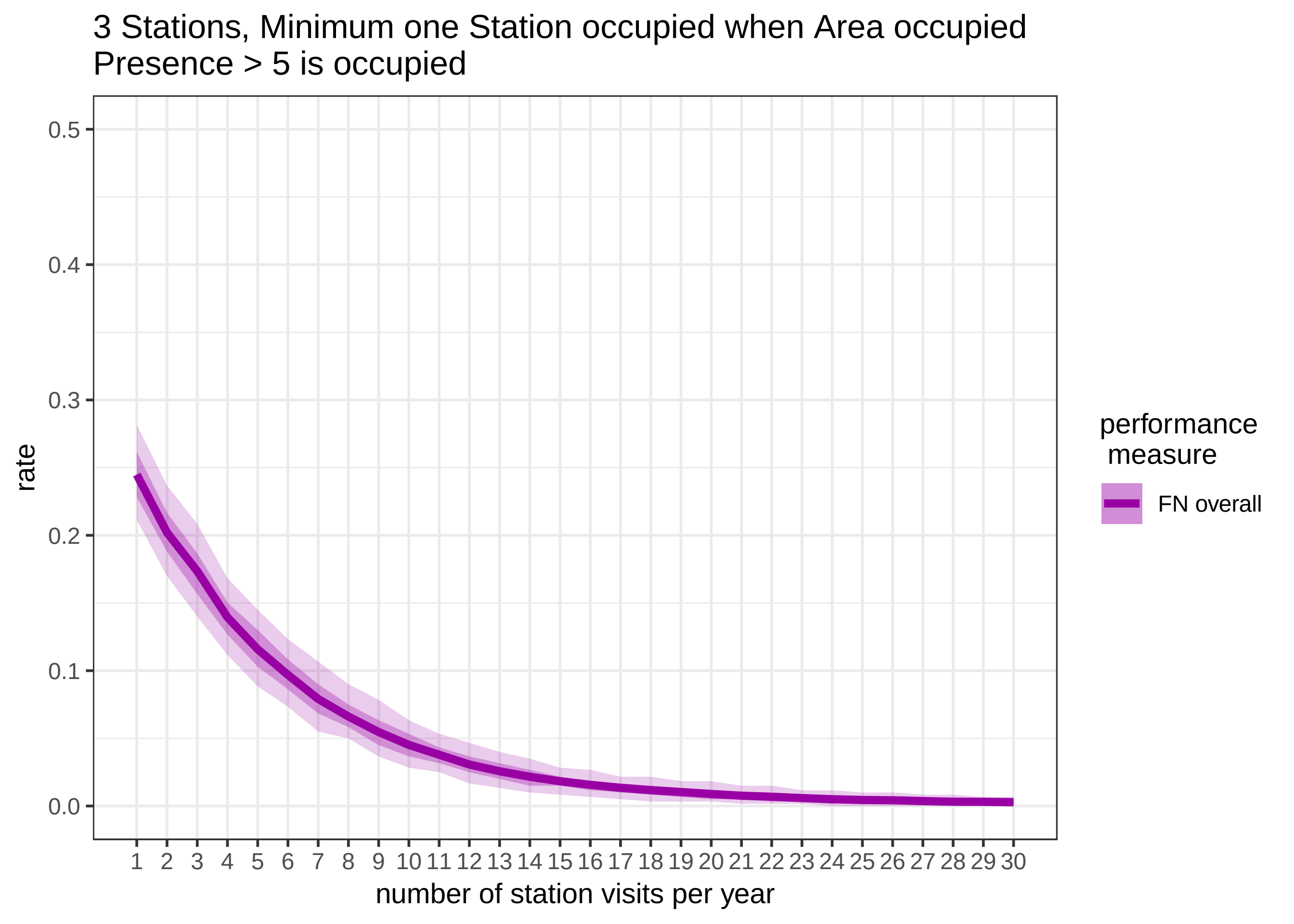


3 Stations, Minimum one Station occupied when Area occupied
Presence > 2 is occupied
0.5
0.4
0.3
0.2
0.1
0.0
rate
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance
measure
FN overall

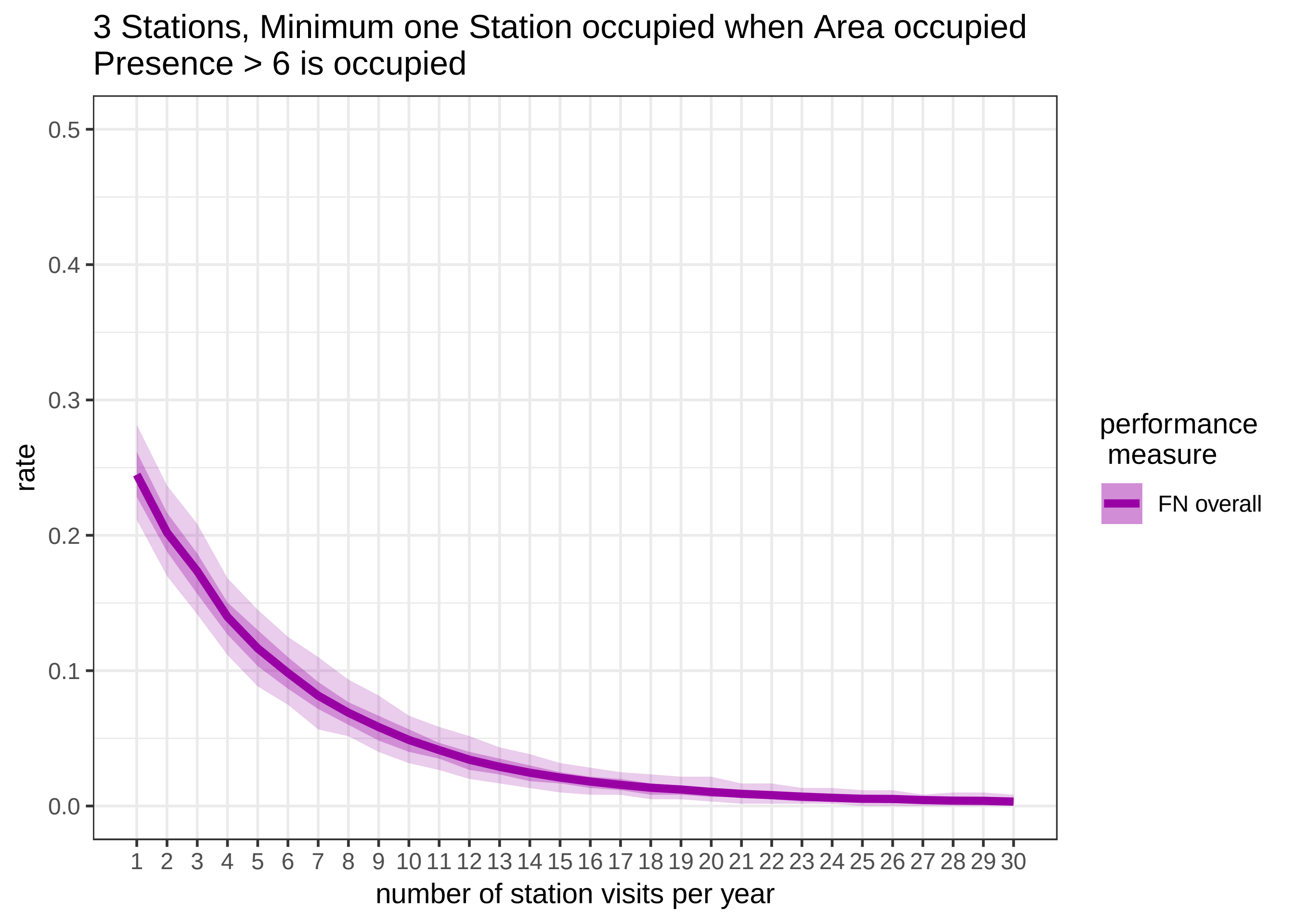

3 Stations, Minimum one Station occupied when Area occupied
Presence > 3 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall



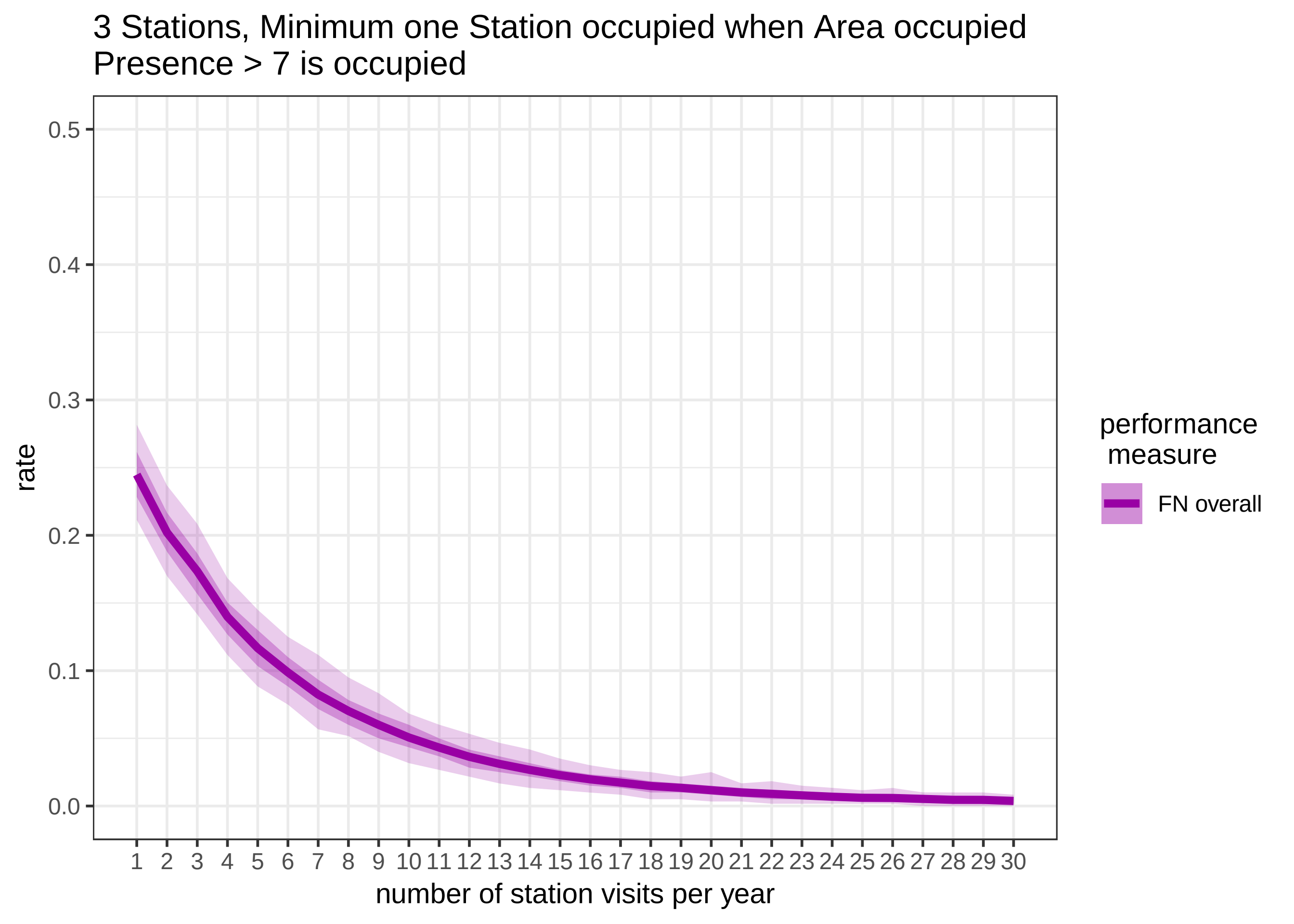
3 Stations, Minimum one Station occupied when Area occupied
Presence > 4 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall



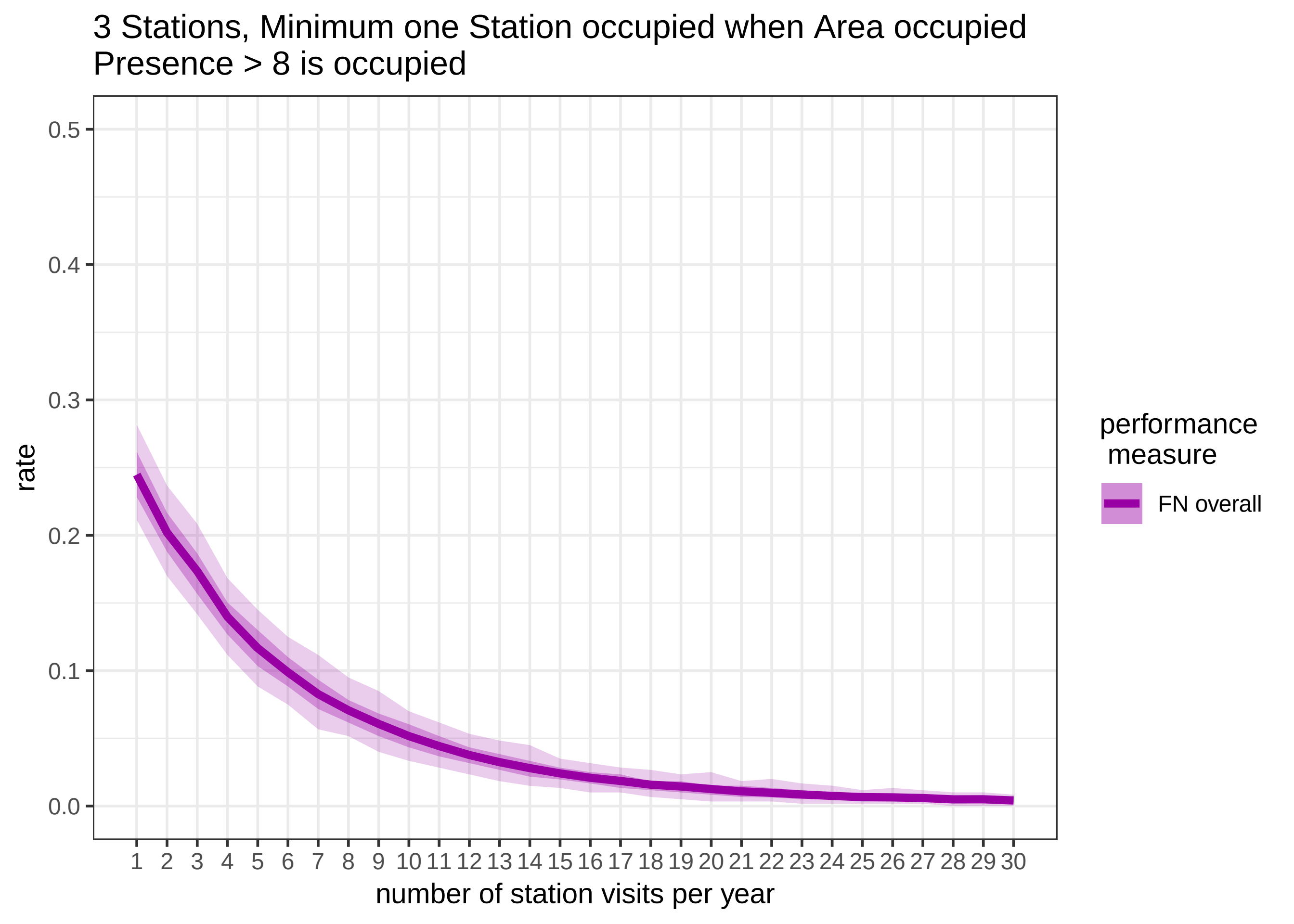
3 Stations, Minimum one Station occupied when Area occupied
Presence > 5 is occupied
0.5
0.4
0.3
0.2
0.1
0.0
rate
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

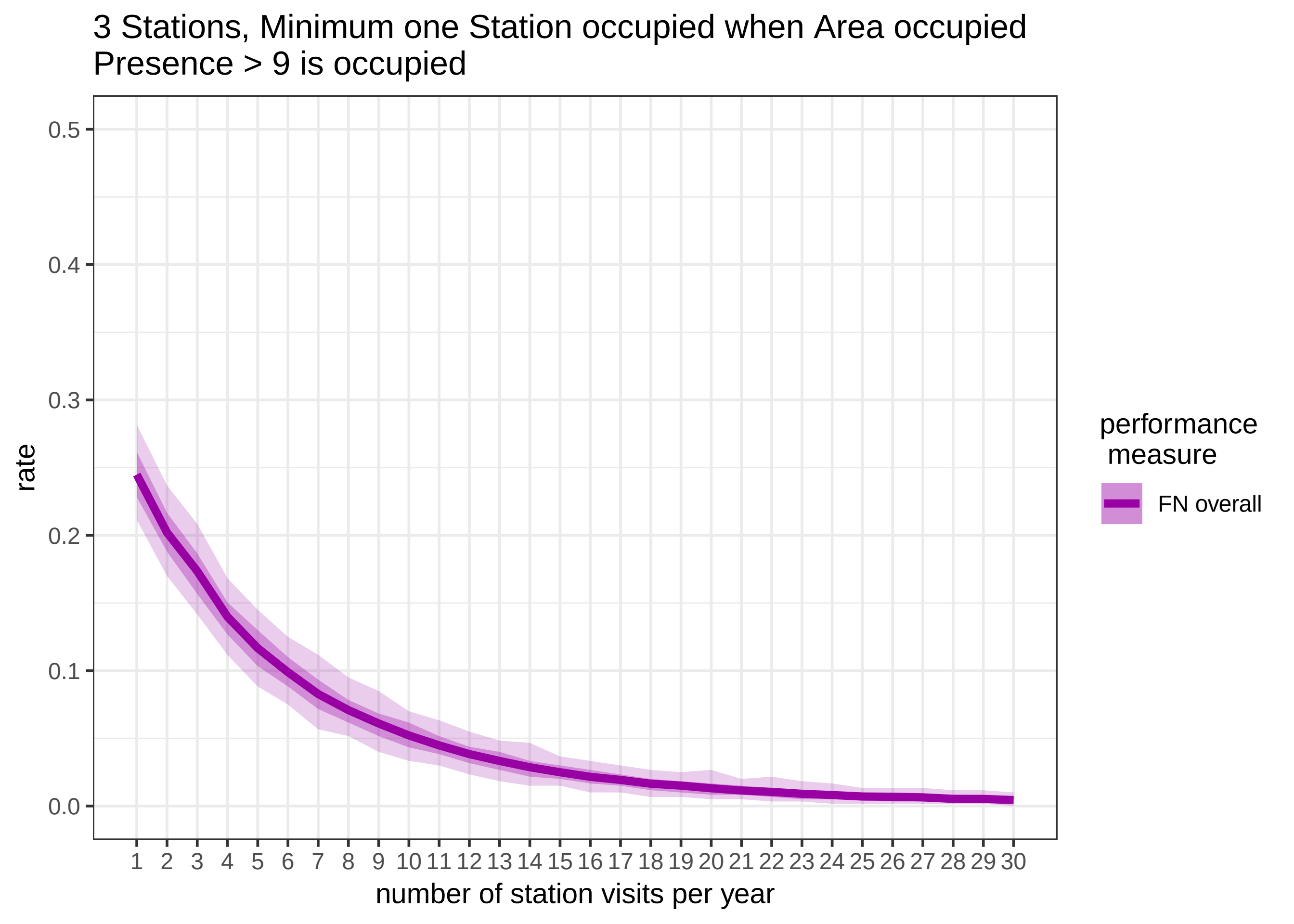


3 Stations, Minimum one Station occupied when Area occupied
Presence > 6 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

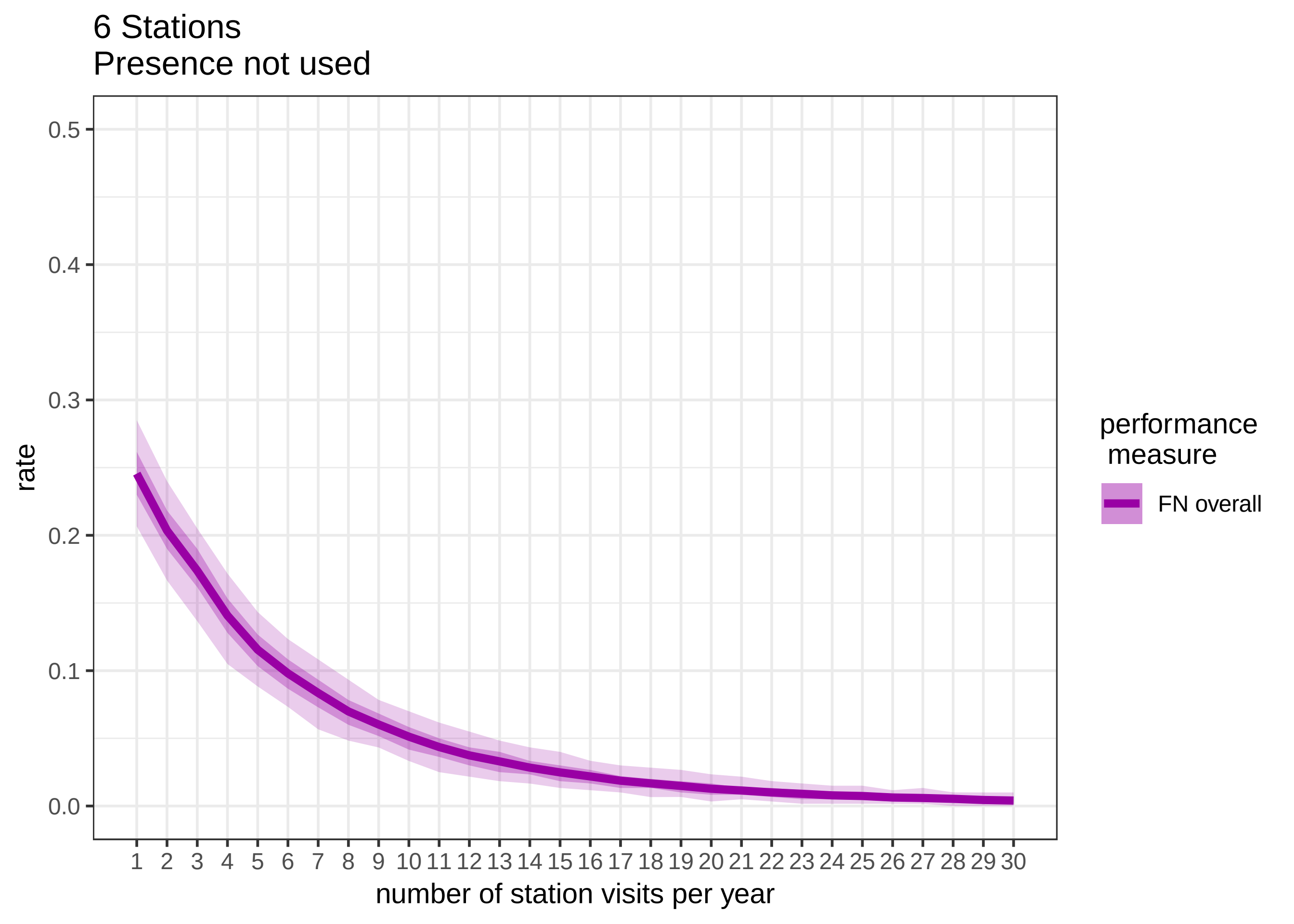


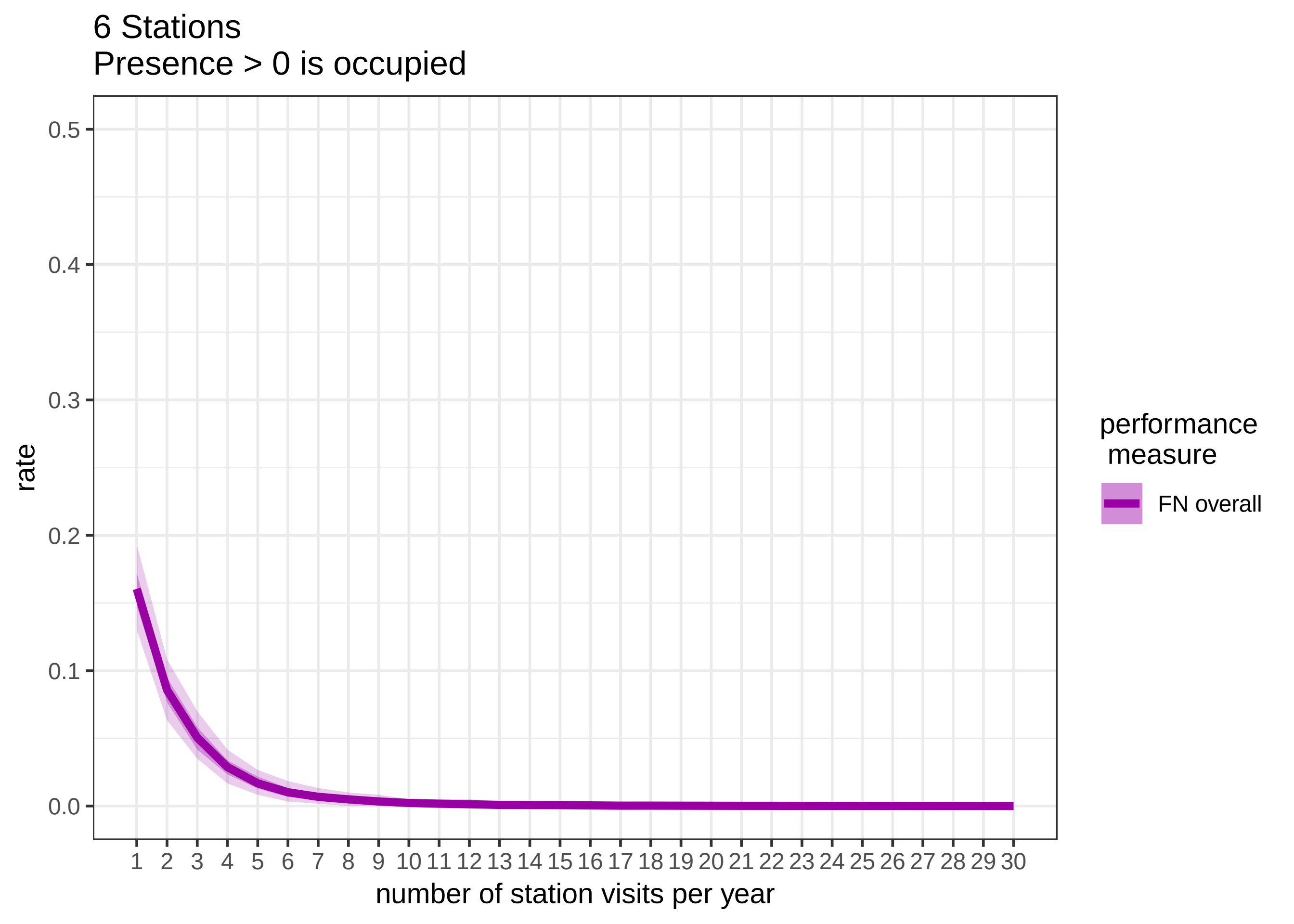
3 Stations, Minimum one Station occupied when Area occupied
Presence > 7 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

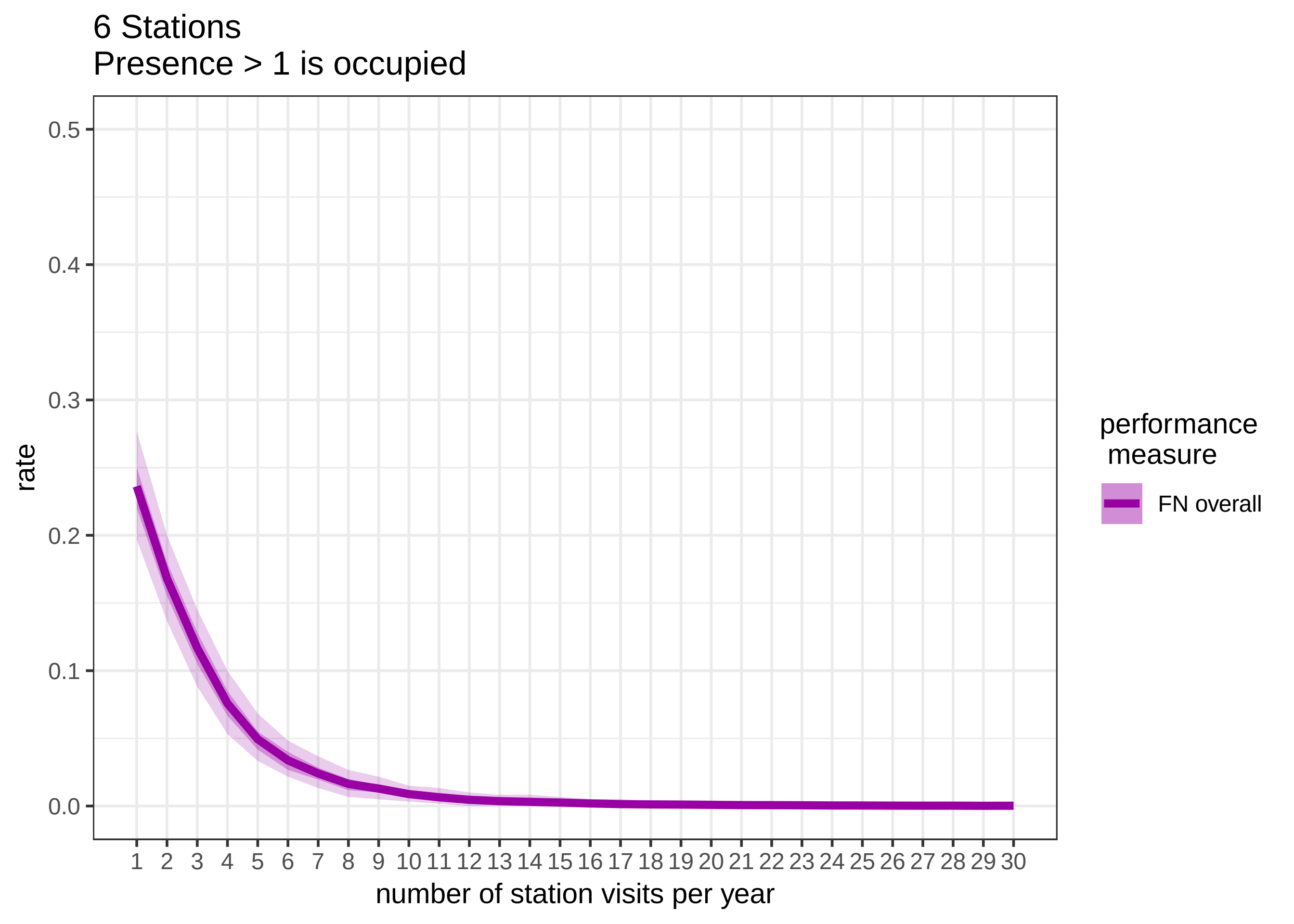

3 Stations, Minimum one Station occupied when Area occupied
Presence > 8 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

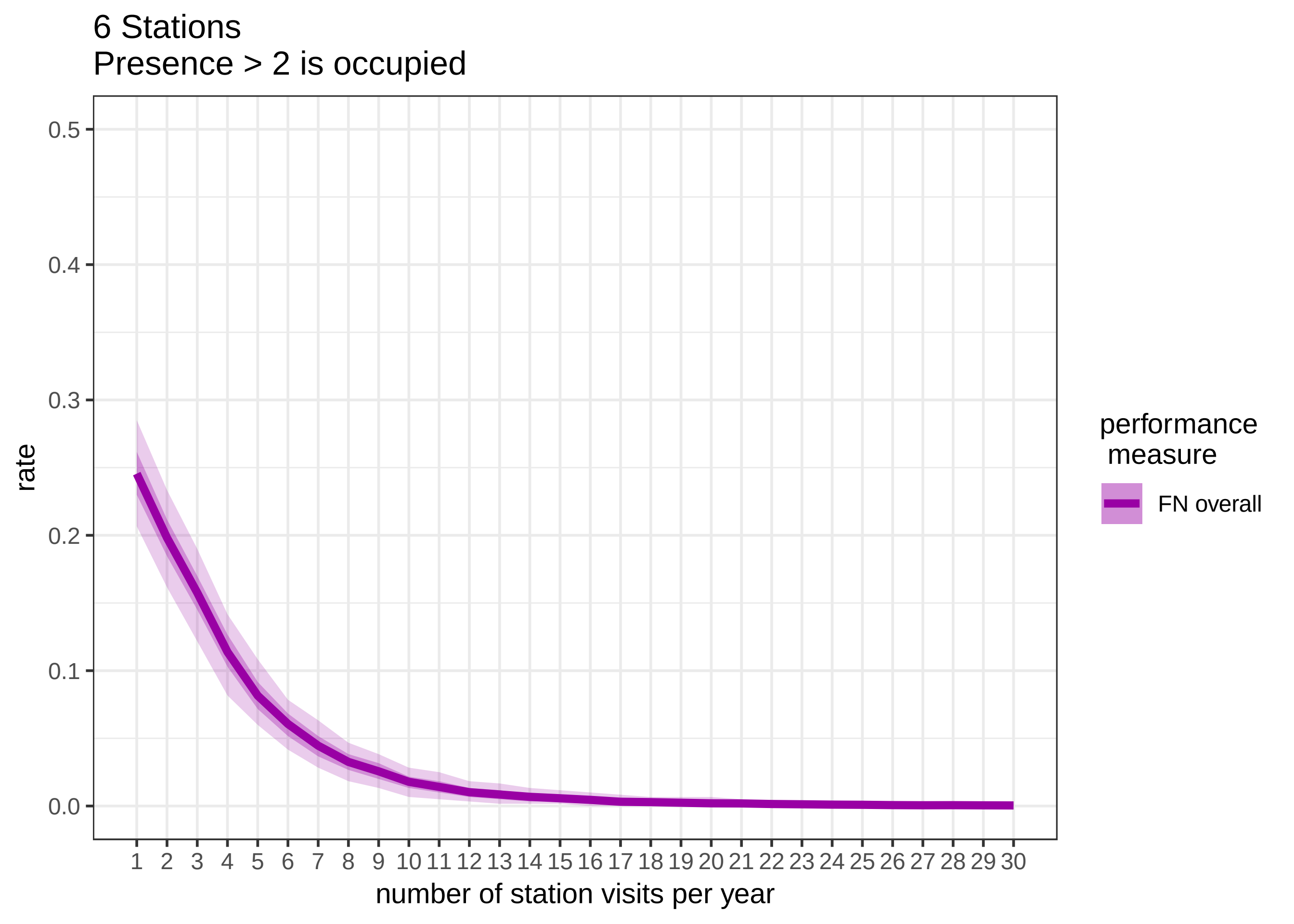


3 Stations, Minimum one Station occupied when Area occupied
Presence > 9 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall


6 Stations
Presence not used
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

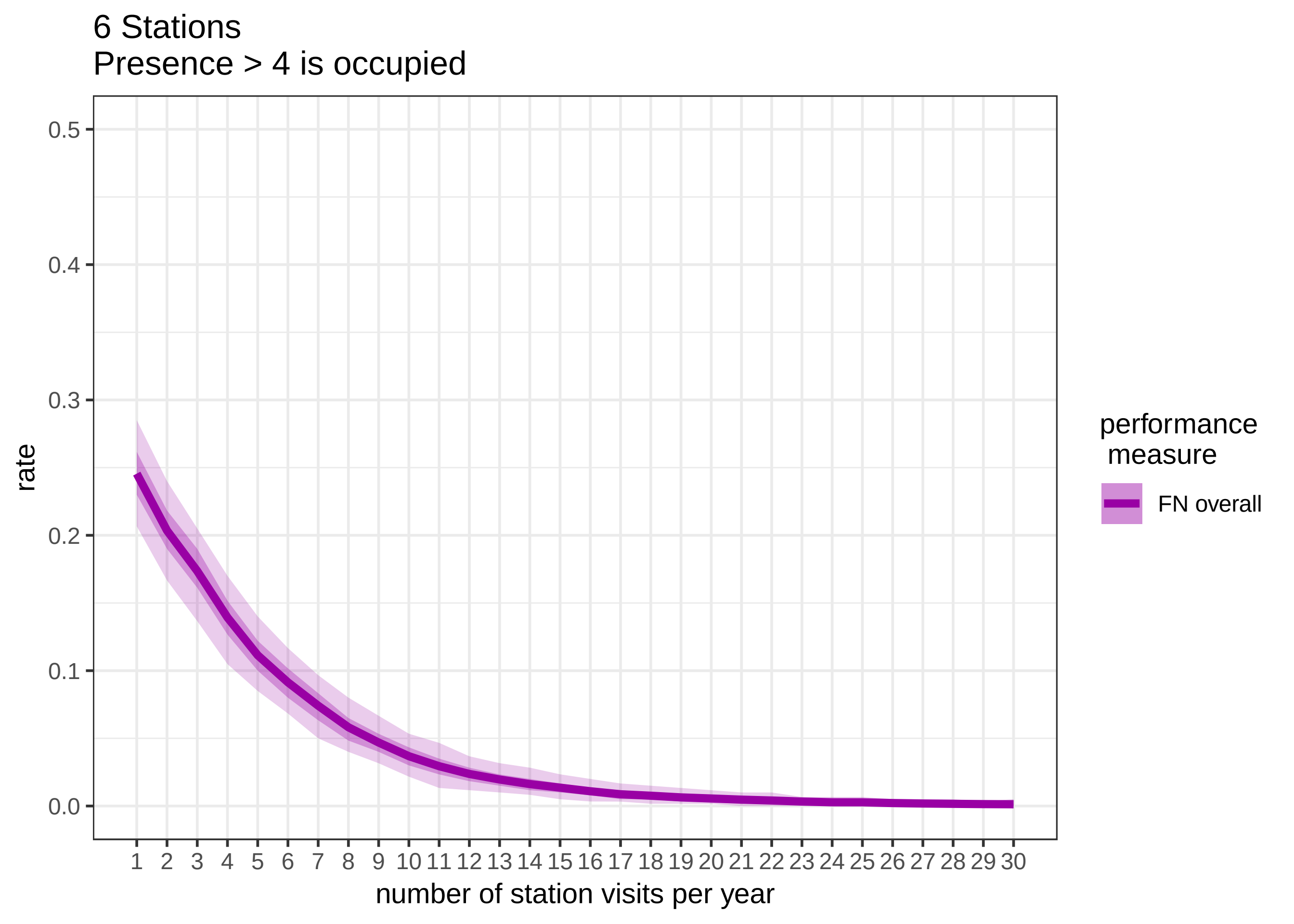

6 Stations
Presence > 0 is occupied
0.5
0.4
0.3
0.2
0.1
0.0
rate
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance
measure
FN overall


6 Stations
Presence > 1 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

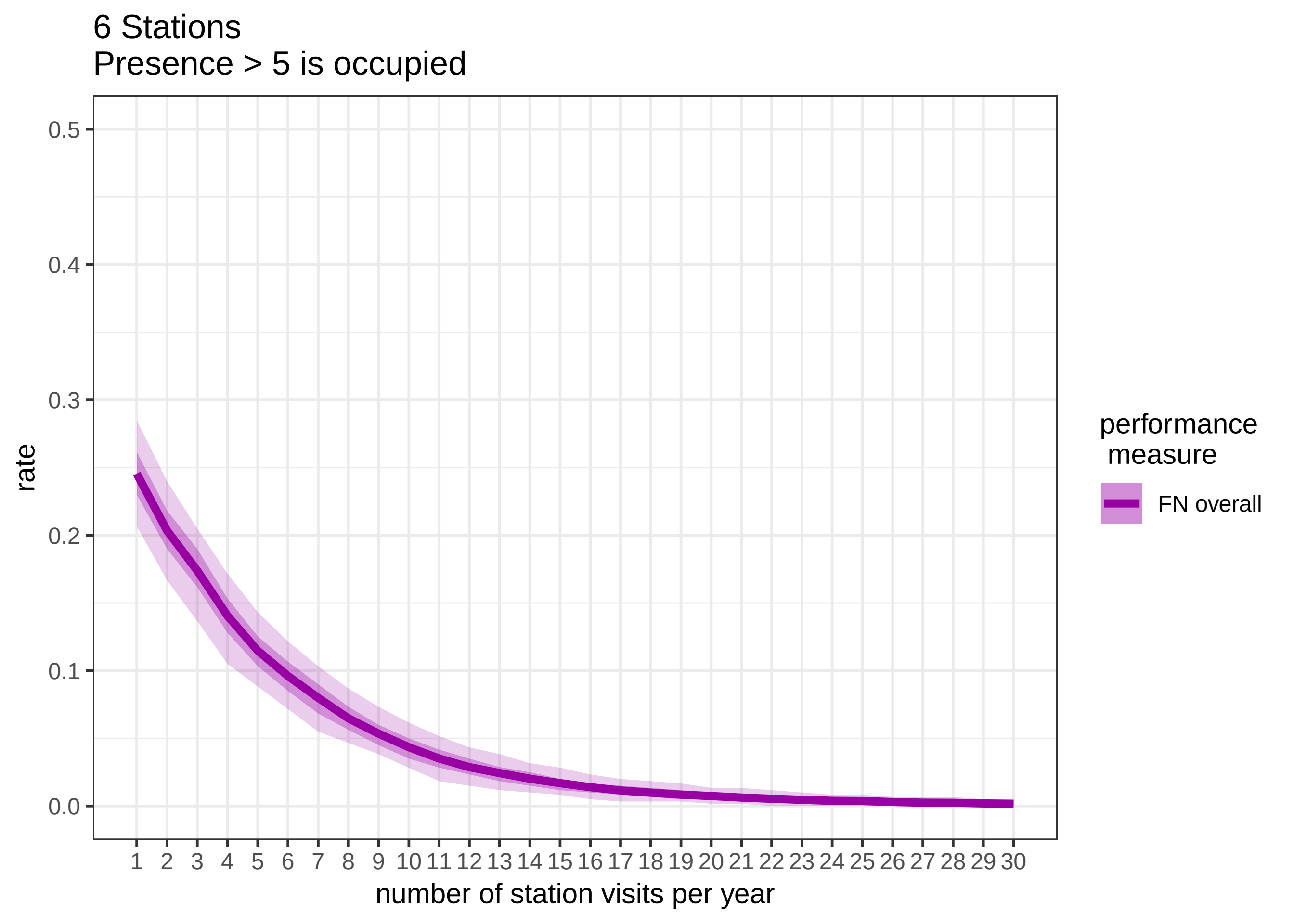


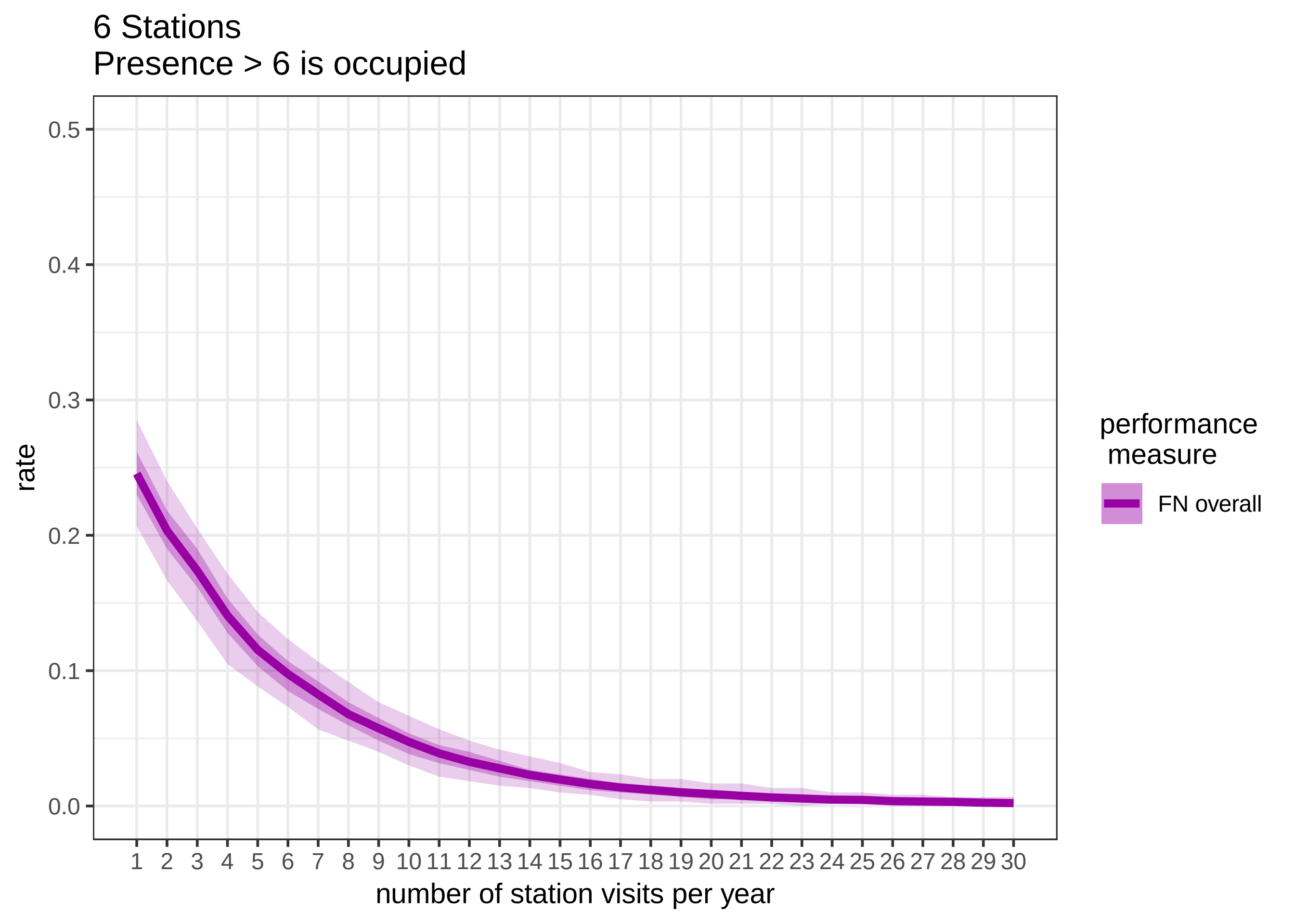
6 Stations
Presence > 2 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall


6 Stations
Presence > 3 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

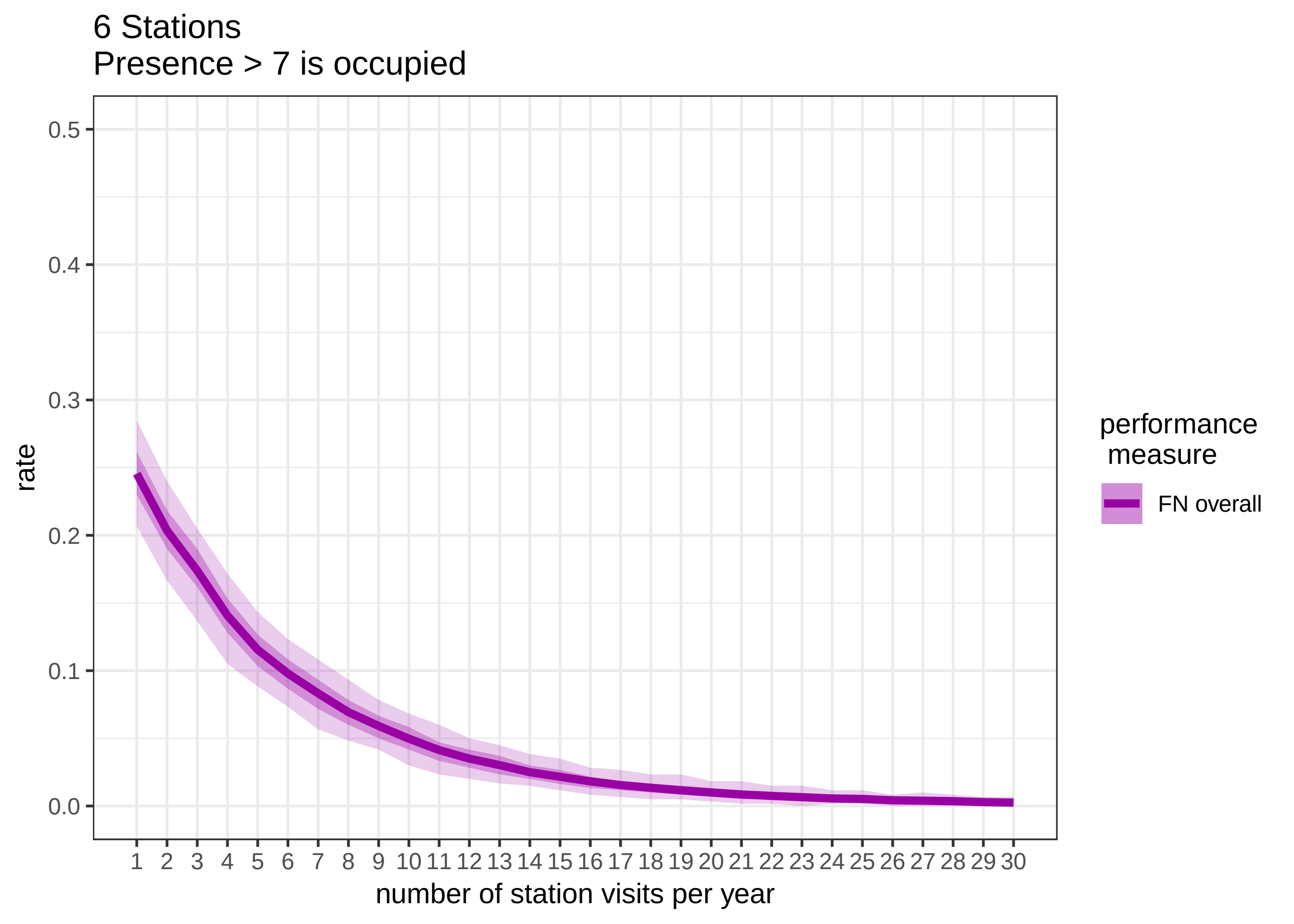


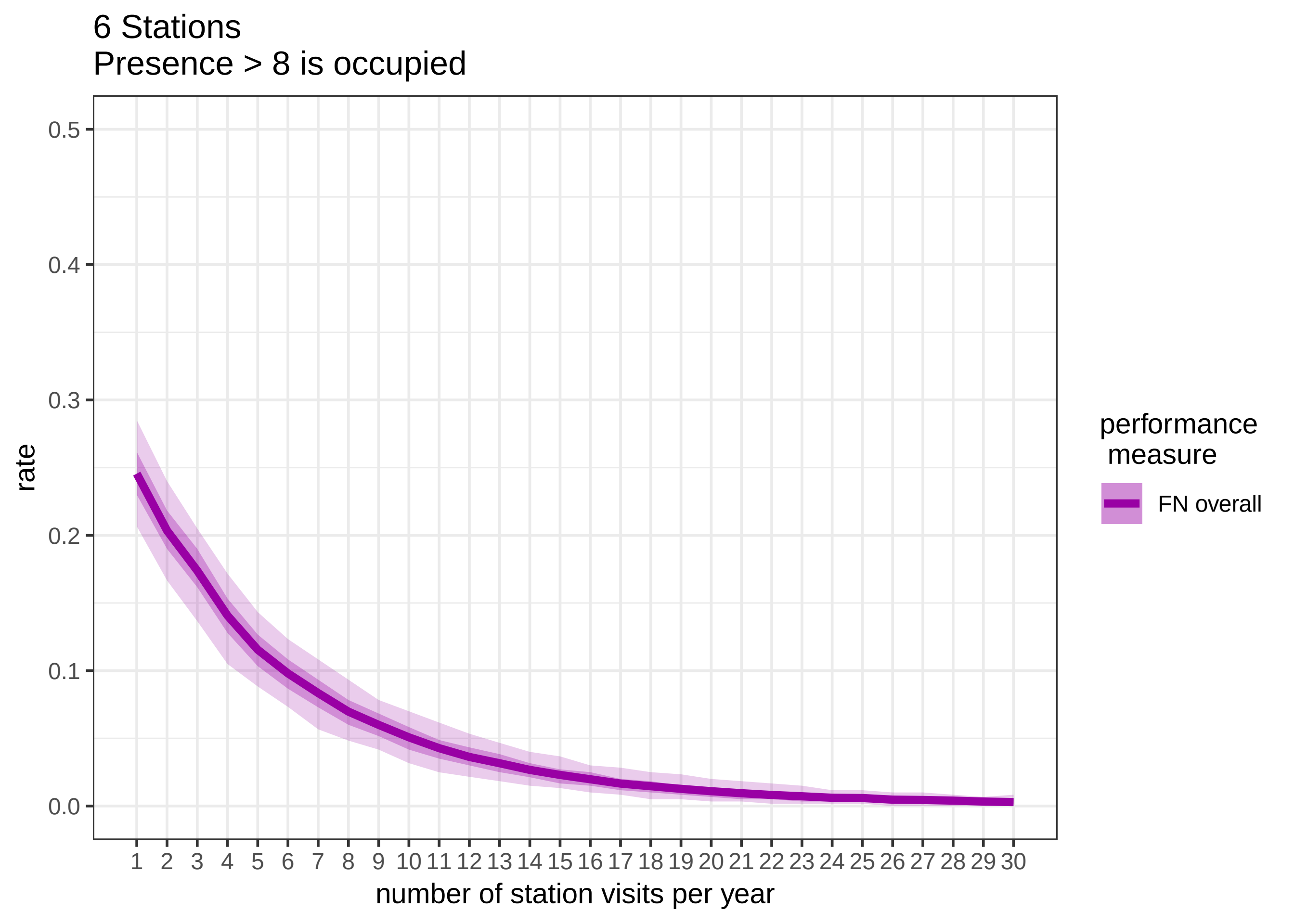
6 Stations
Presence > 4 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

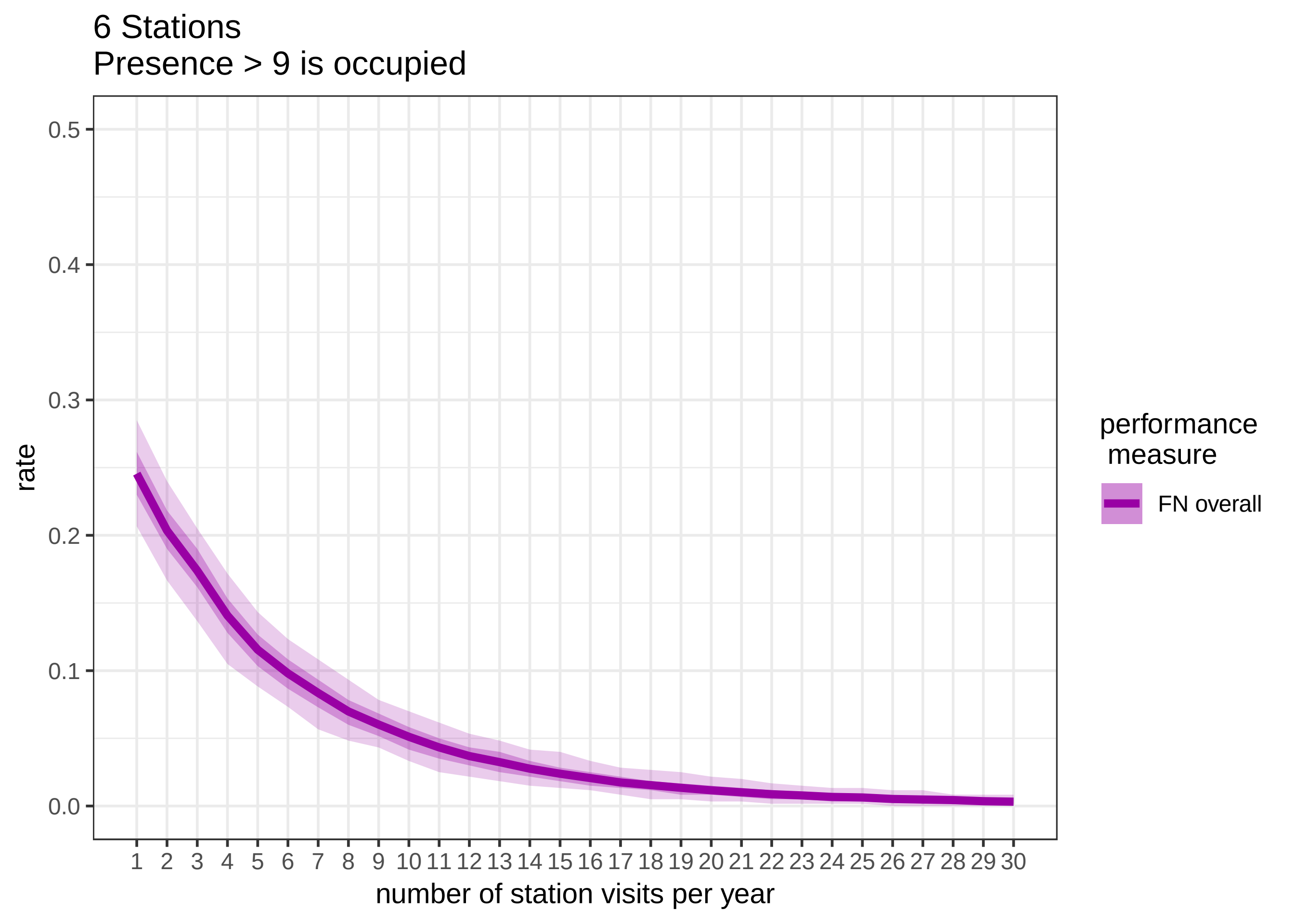

6 Stations
Presence > 5 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance
measure
FN overall



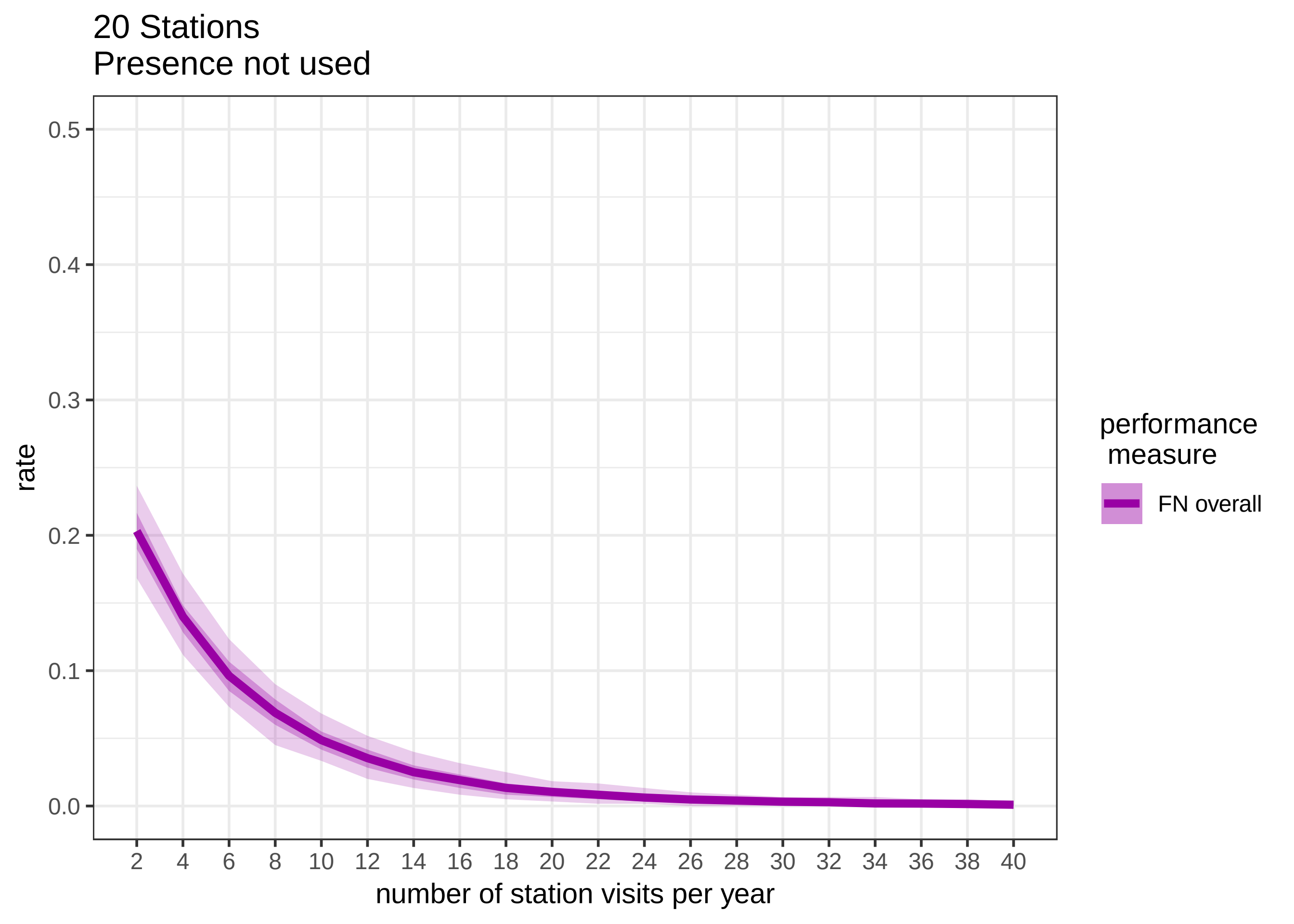
6 Stations
Presence > 6 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

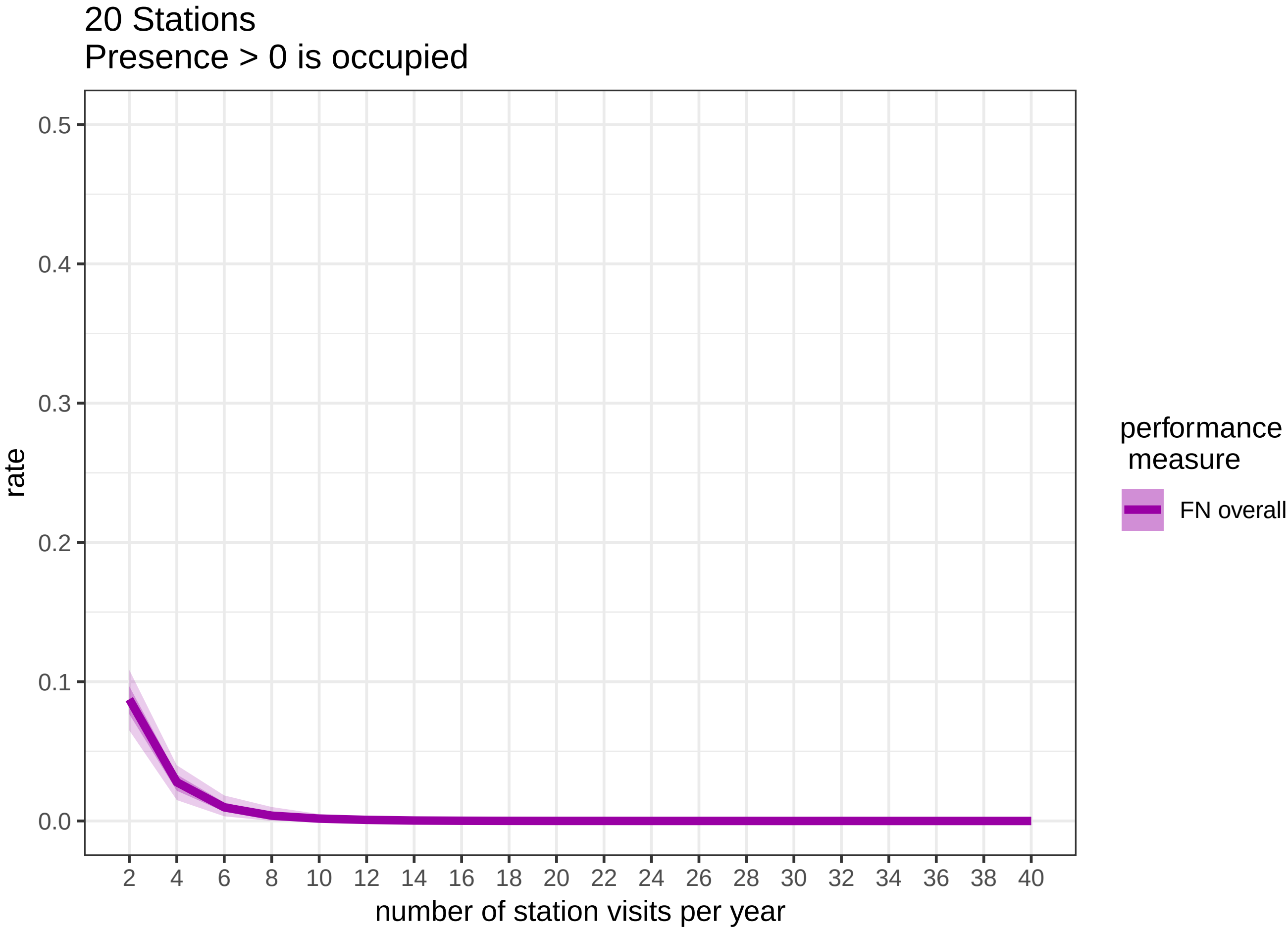

6 Stations
Presence > 7 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

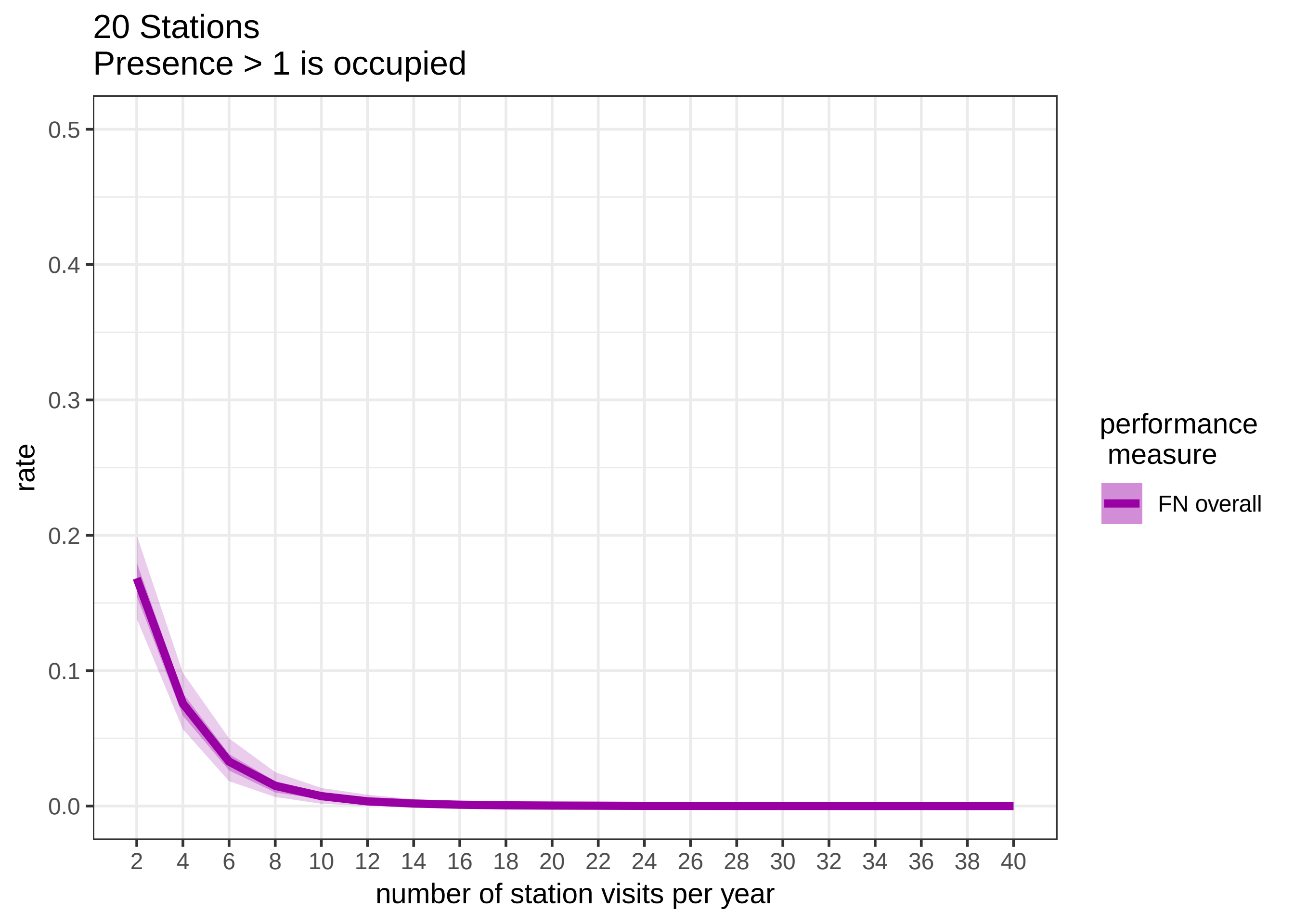

6 Stations
Presence > 8 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall

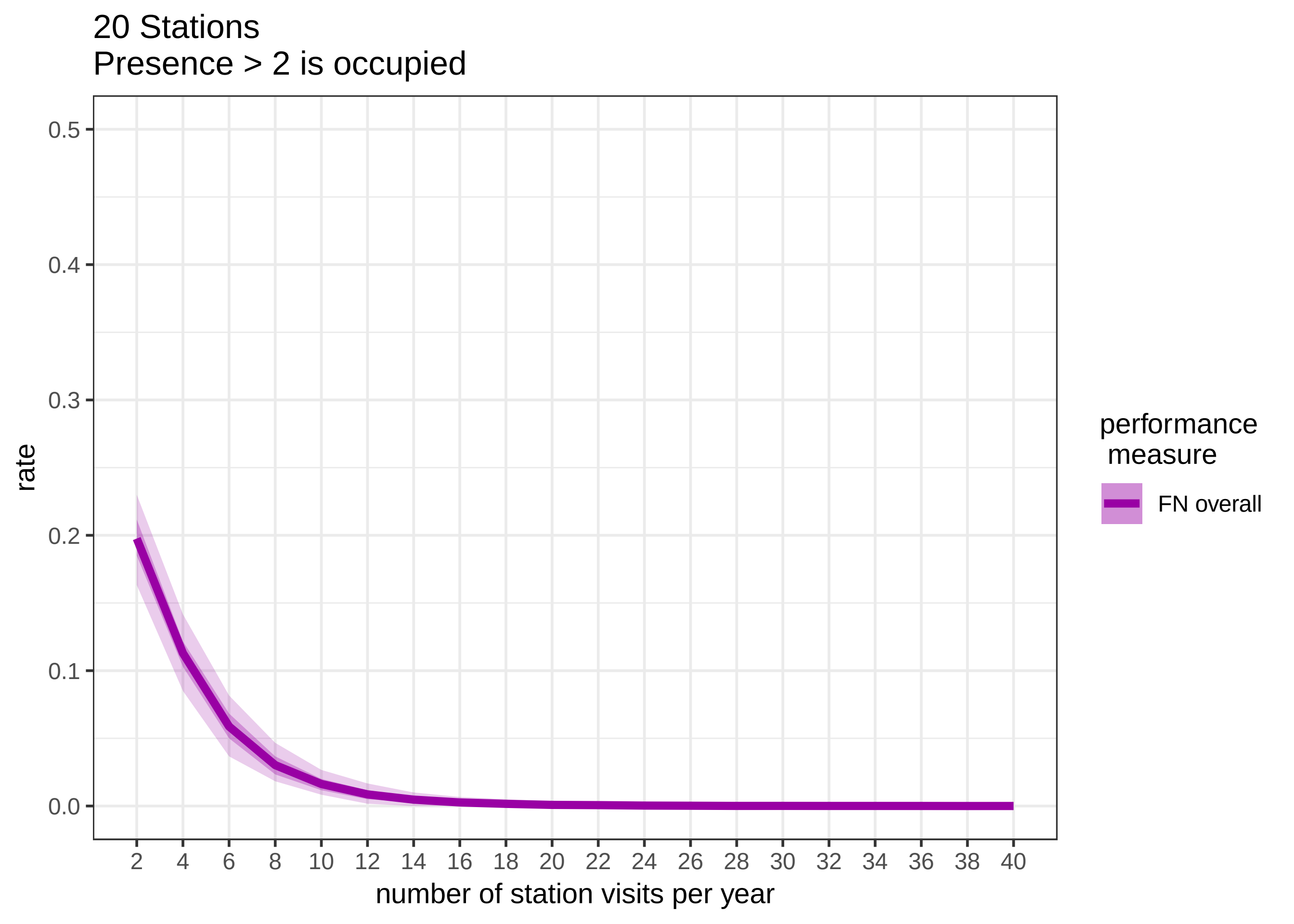


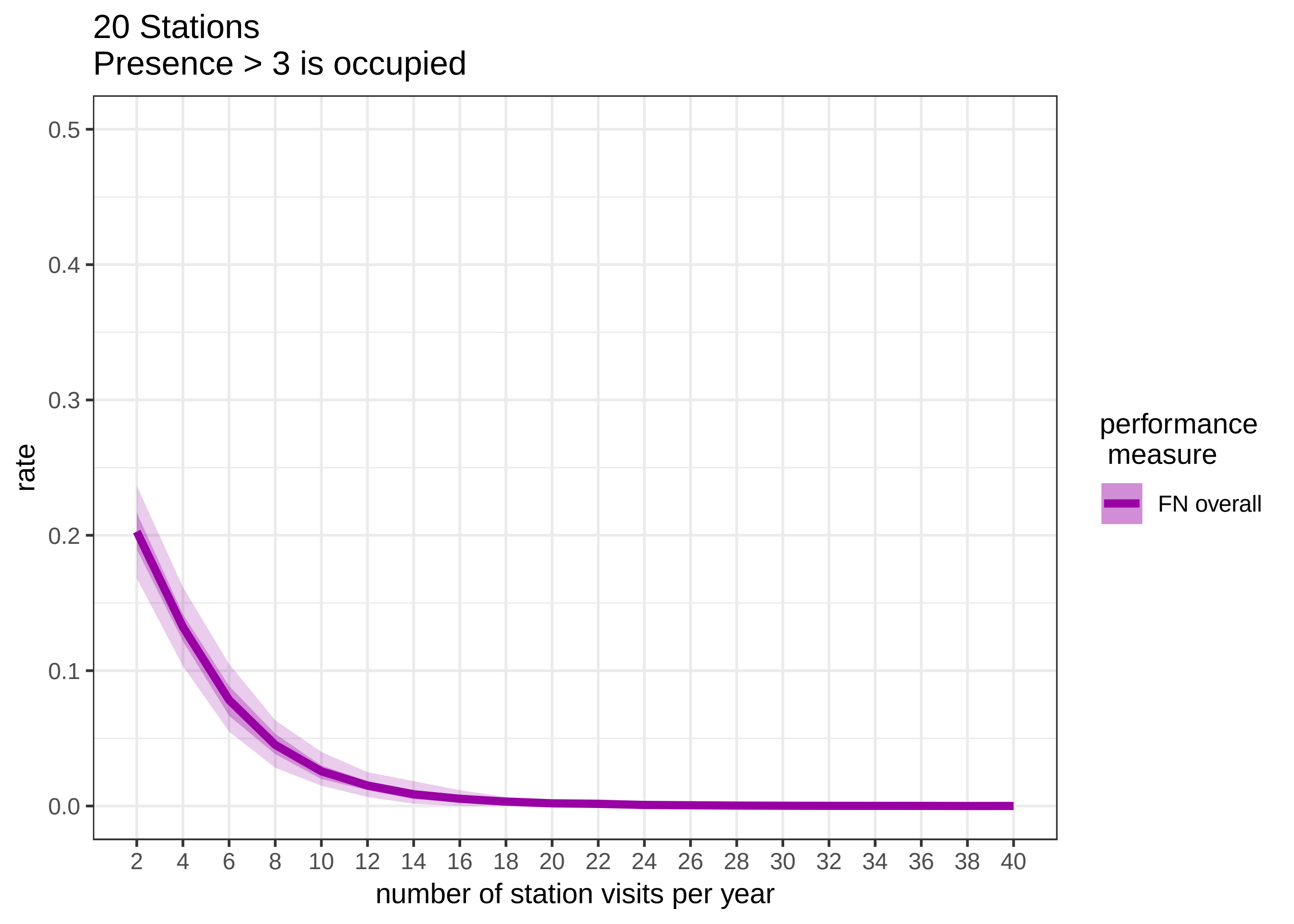
6 Stations
Presence > 9 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
number of station visits per year
performance measure
FN overall


20 Stations
Presence not used
rate
0.5
0.4
0.3
0.2
0.1
0.0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance
measure
FN overall

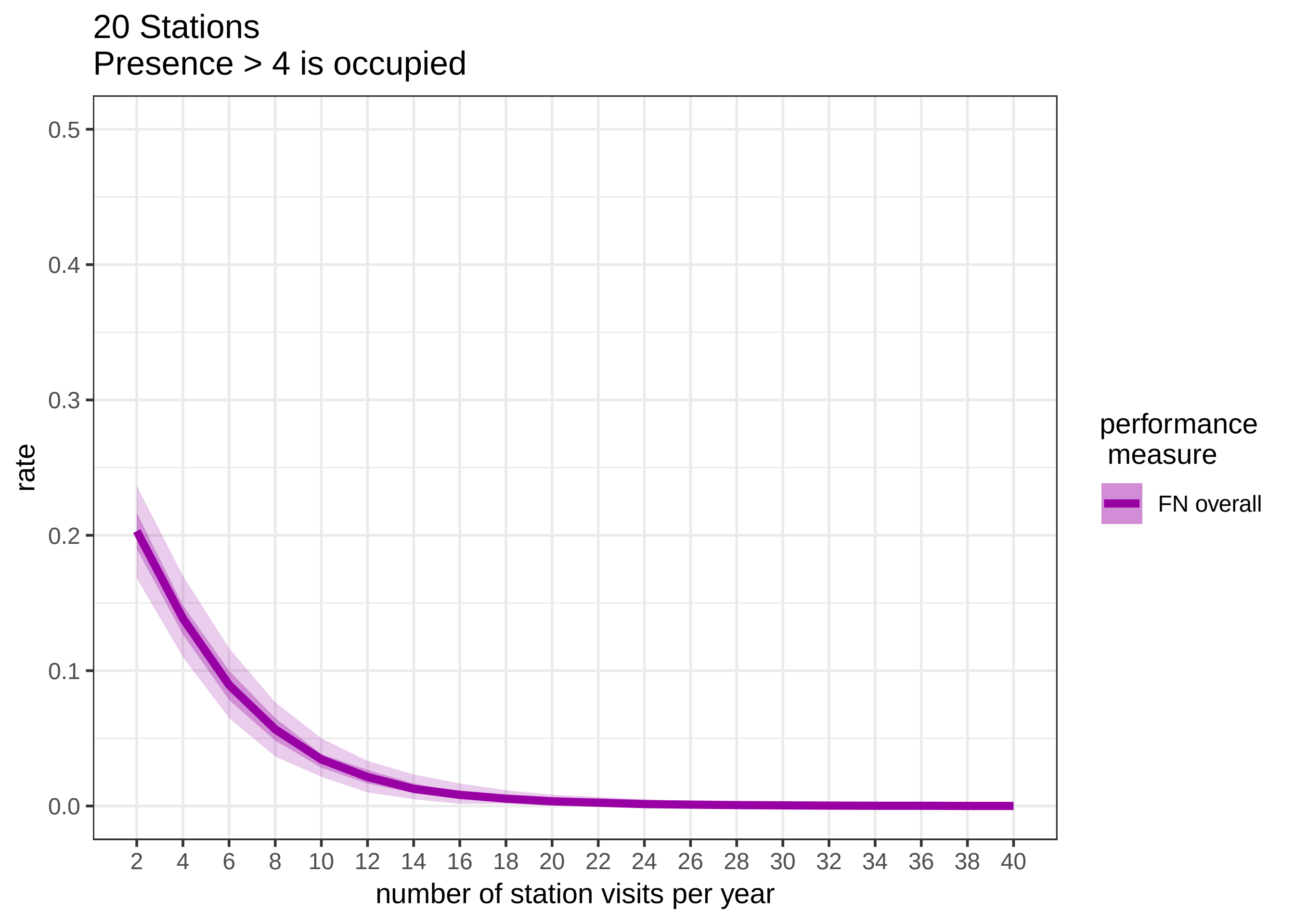

20 Stations
Presence > 0 is occupied
0.5
0.4
0.3
0.2
0.1
0.0
rate
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance
measure
FN overall

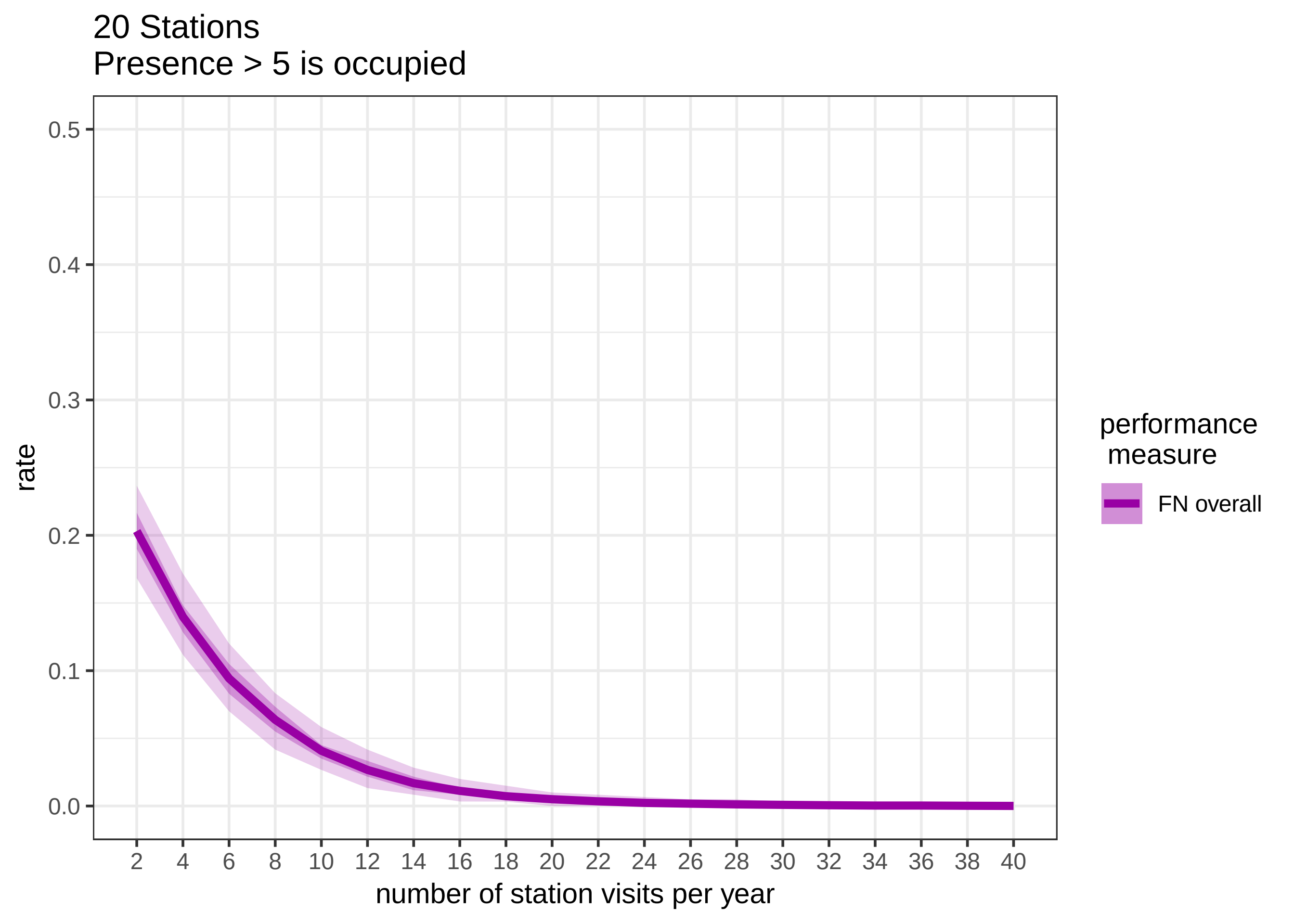

20 Stations
Presence > 1 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance
measure
FN overall

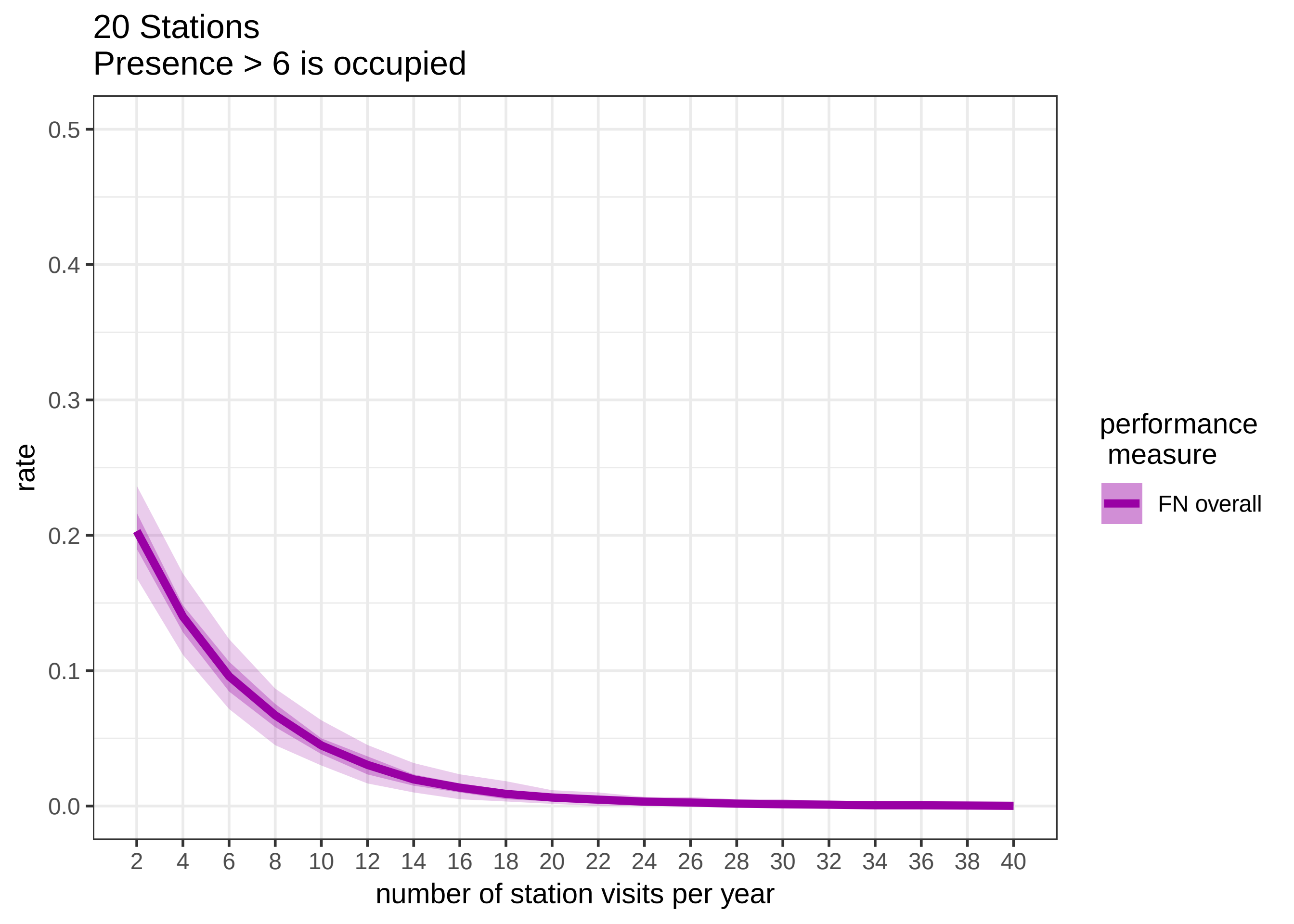

20 Stations
Presence > 2 is occupied
0.5
0.4
0.3
0.2
0.1
0.0
rate
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FN overall



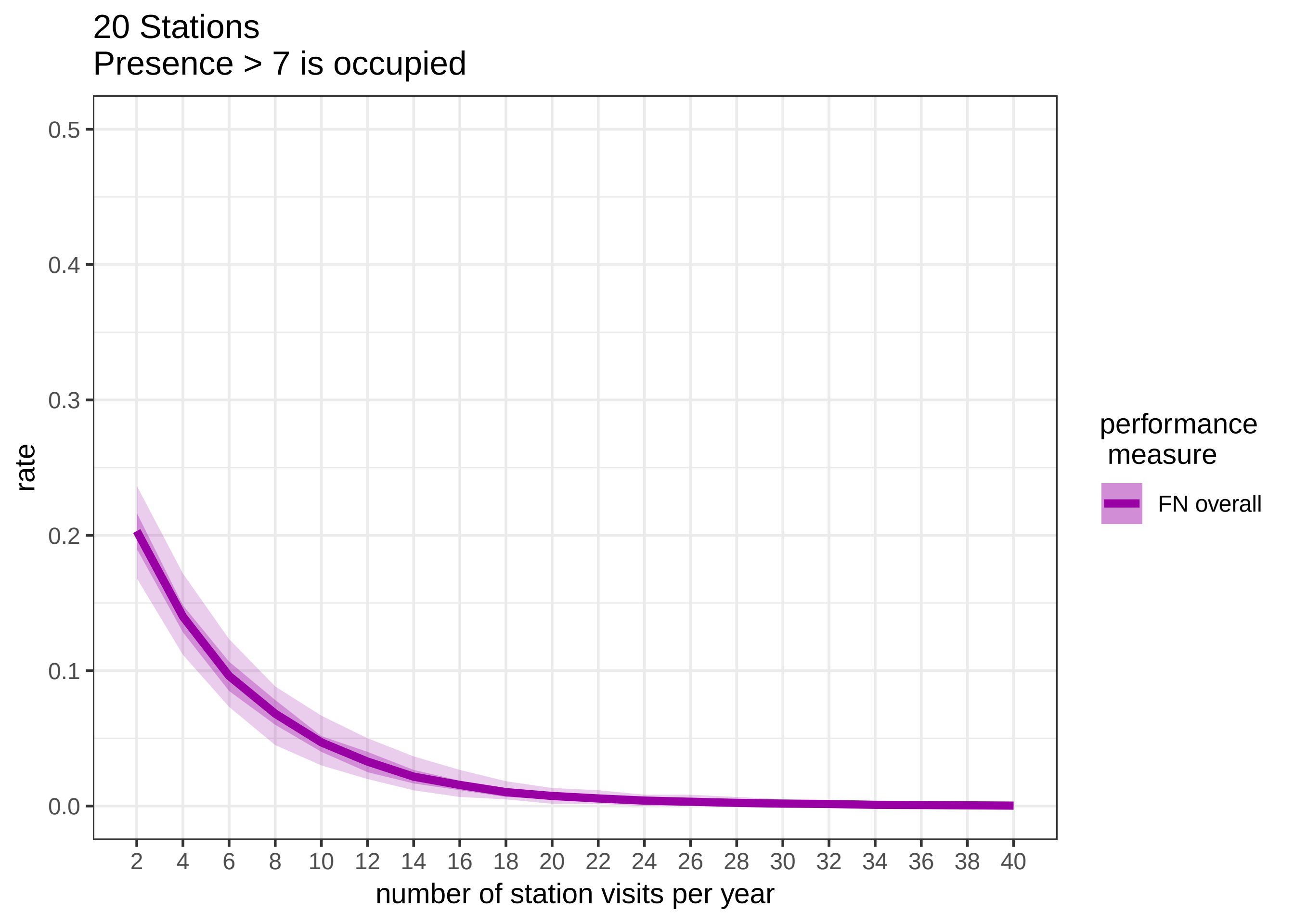
20 Stations
Presence > 3 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40
number of station visits per year
performance measure
FN overall


20 Stations
Presence > 4 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FN overall

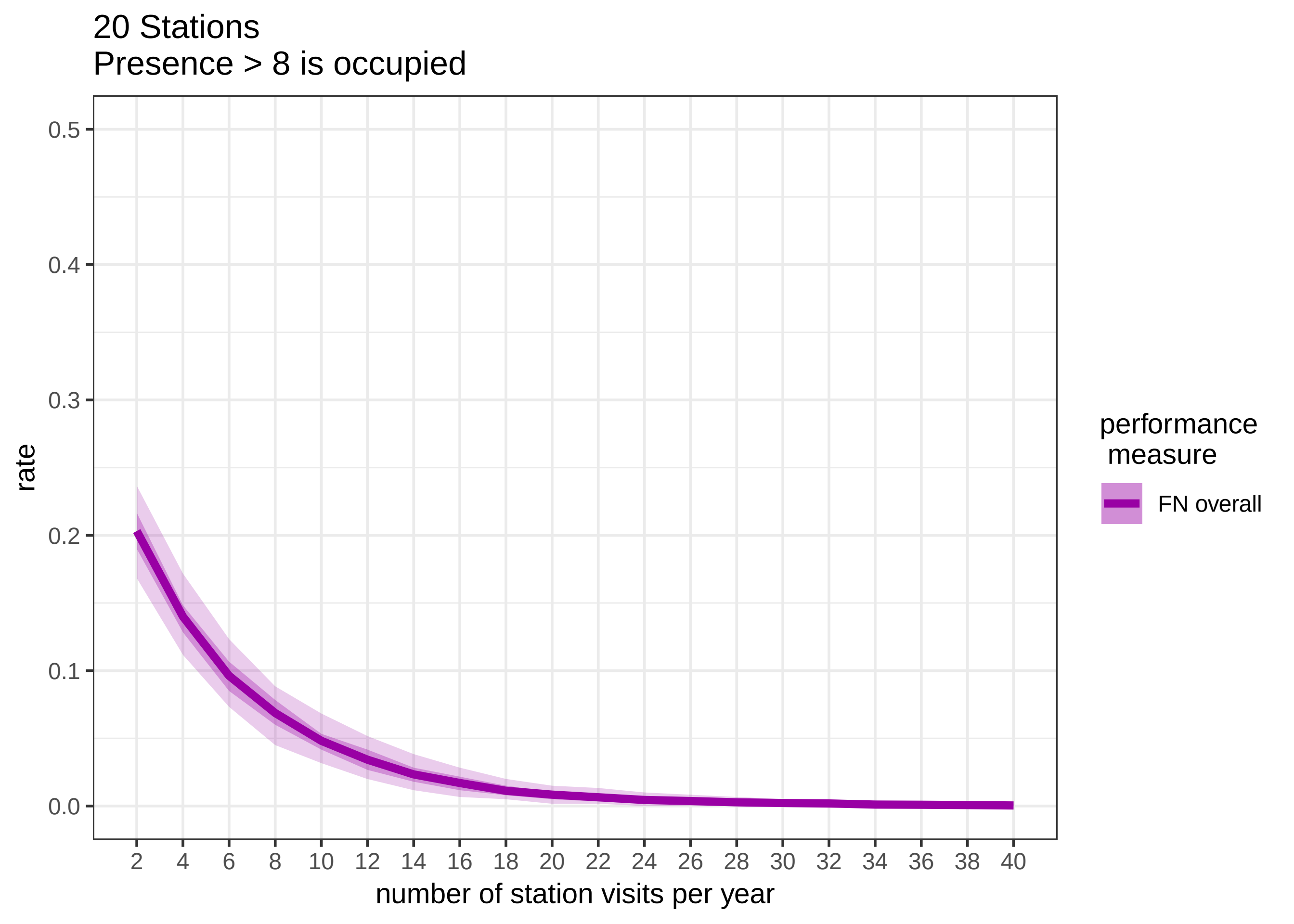

20 Stations
Presence > 5 is occupied
0.5
0.4
0.3
0.2
0.1
0.0
rate
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance
measure
FN overall

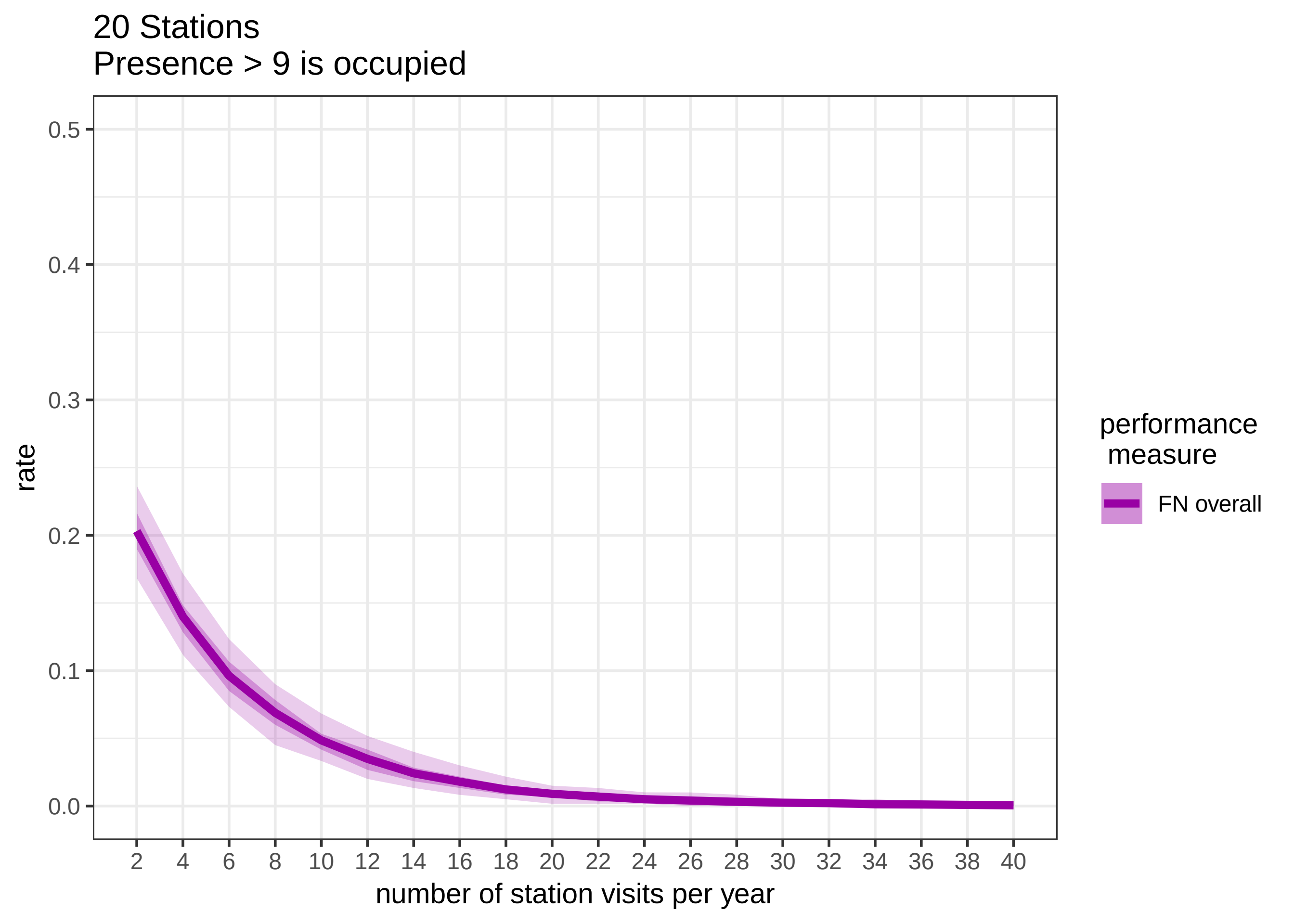


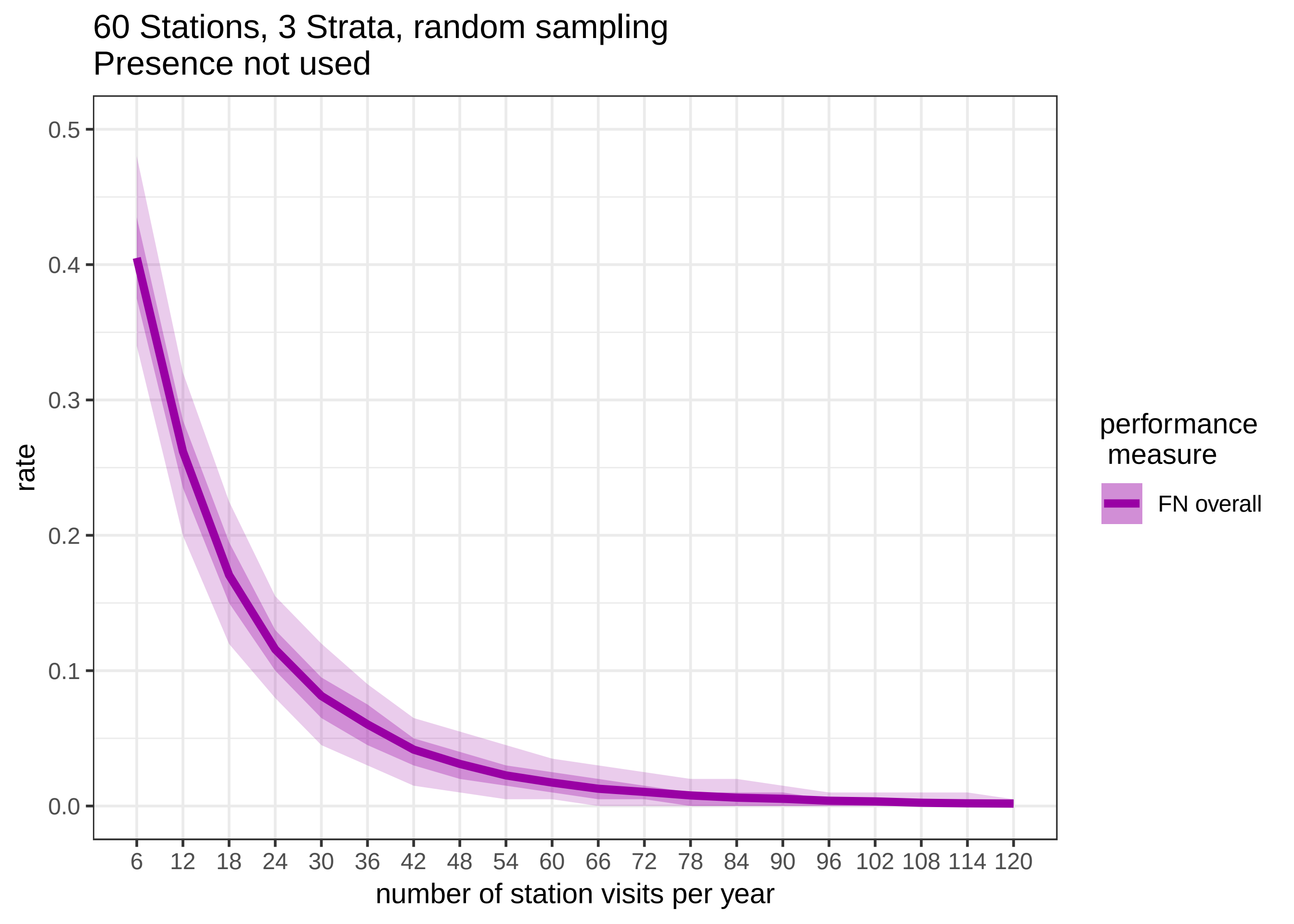
20 Stations
Presence > 6 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance
measure
FN overall



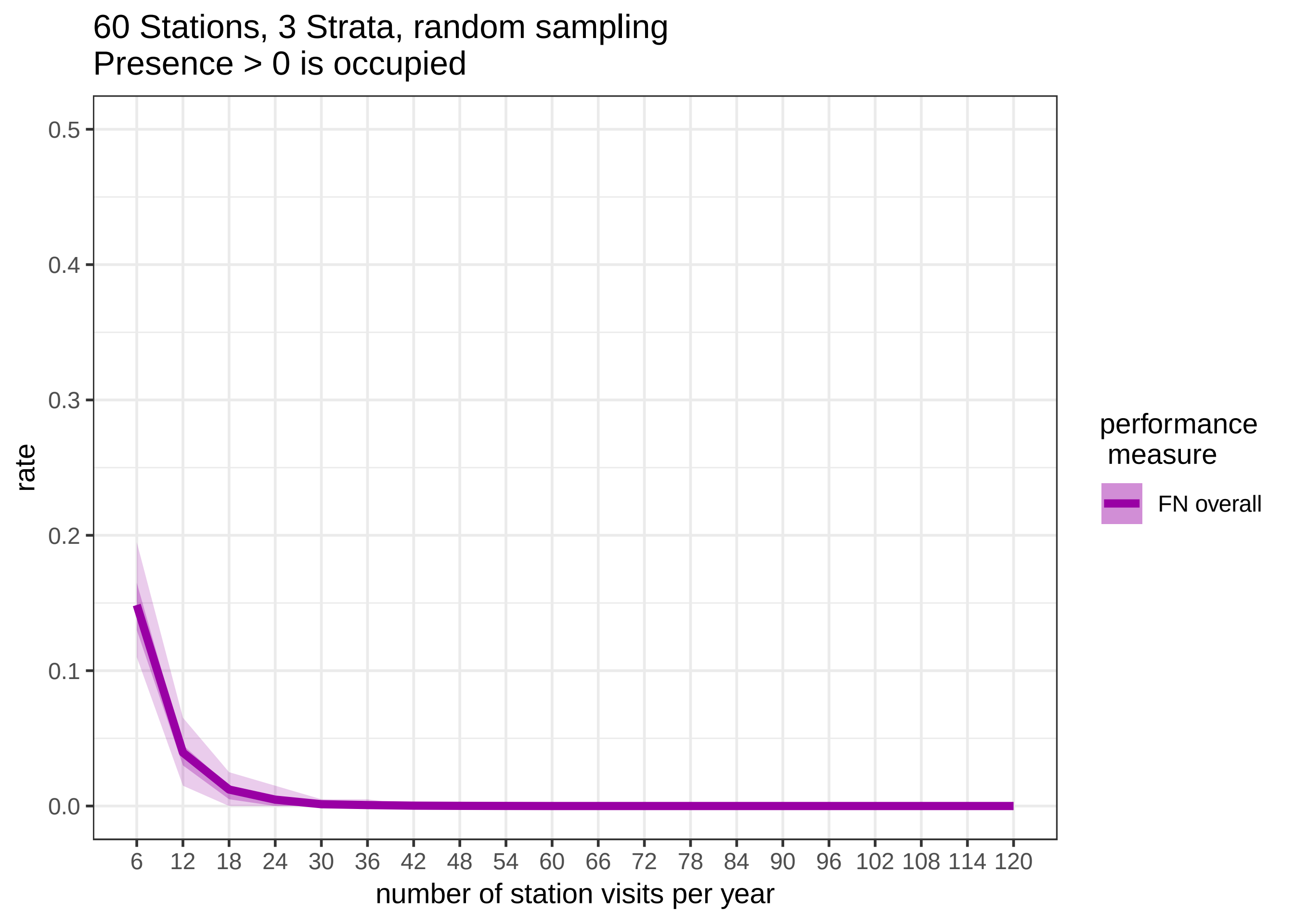
20 Stations
Presence > 7 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance
measure
FN overall


20 Stations
Presence > 8 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance
measure
FN overall

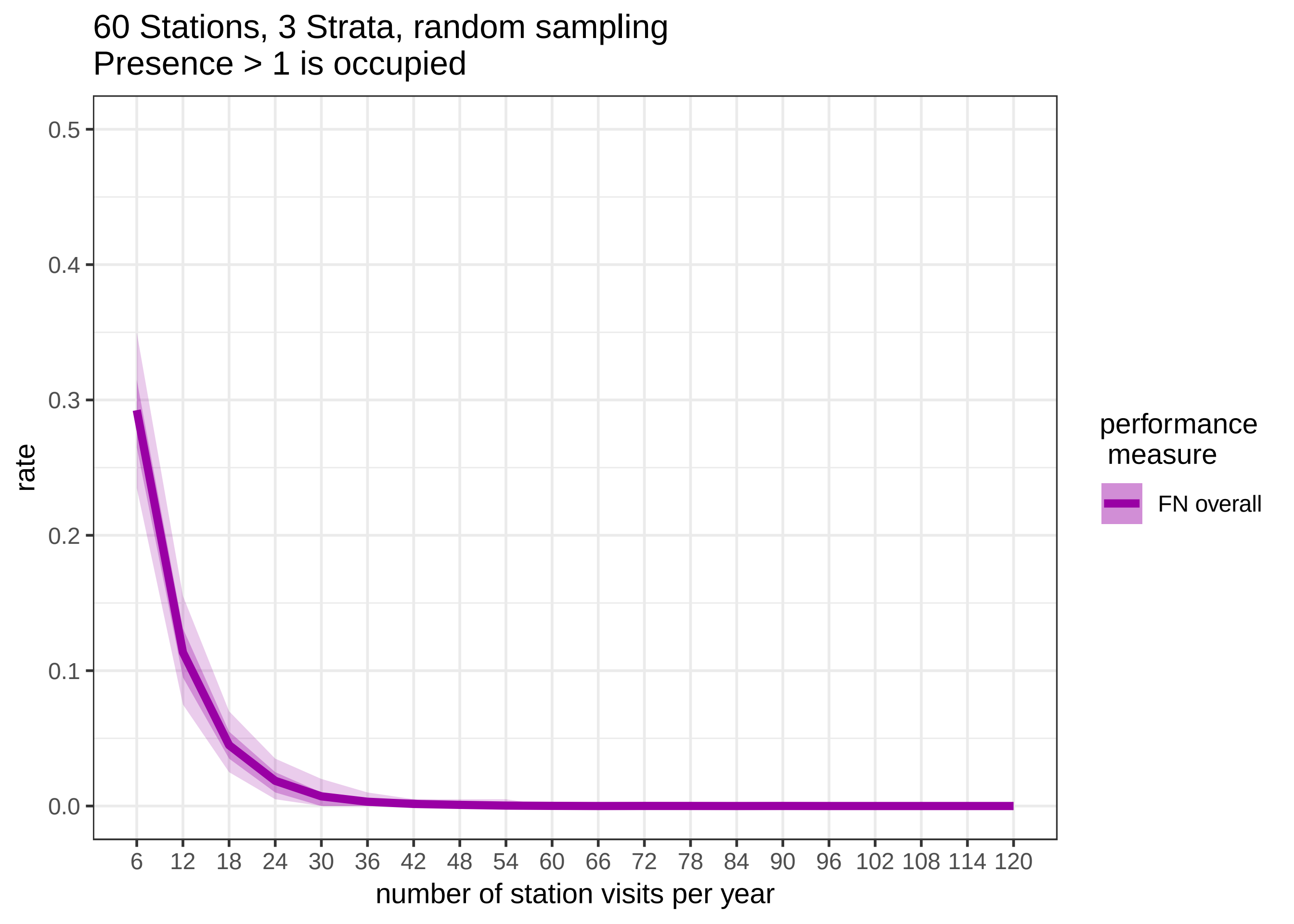

20 Stations
Presence > 9 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
number of station visits per year
performance measure
FN overall



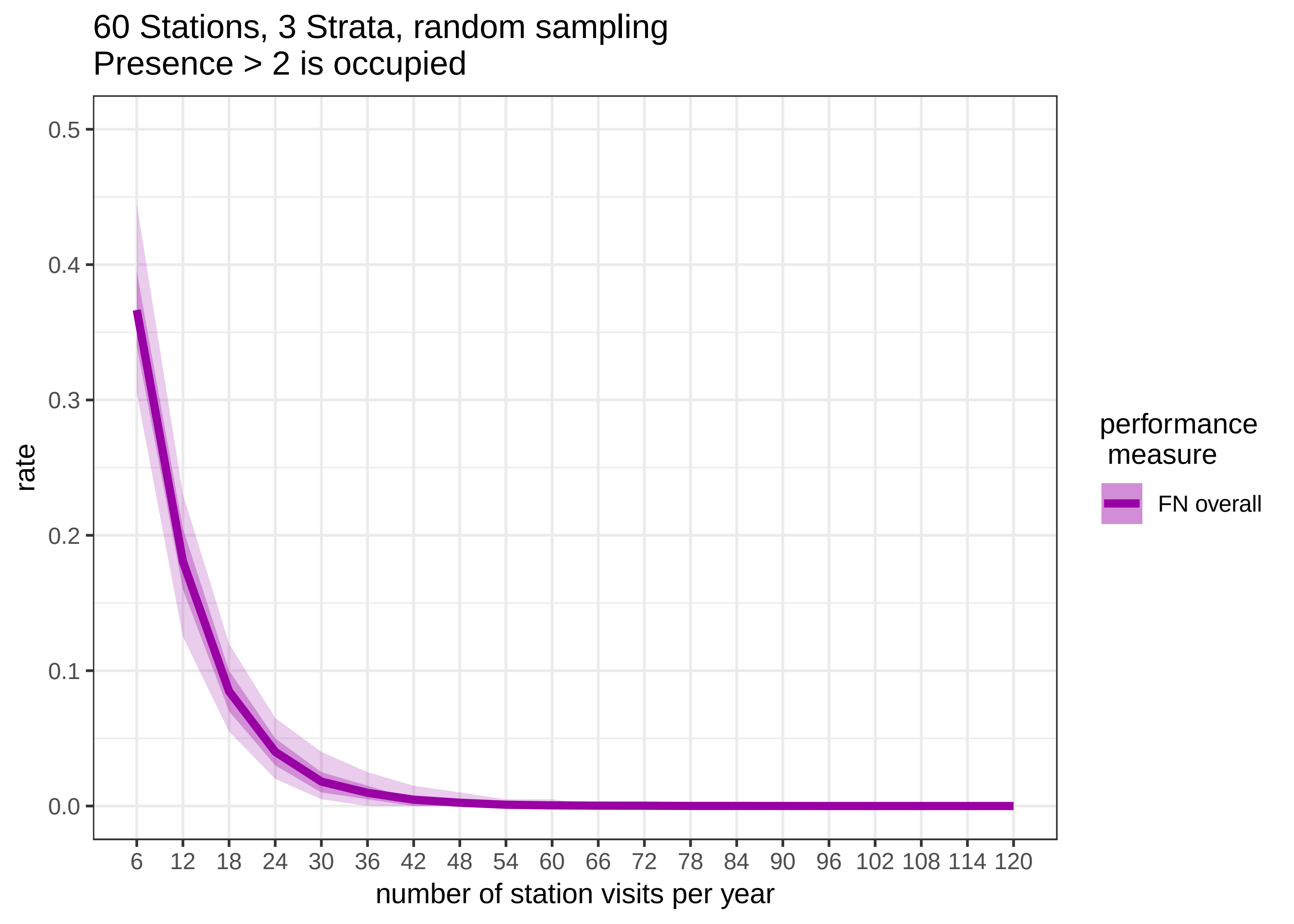
60 Stations, 3 Strata, random sampling
Presence not used
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FN overall



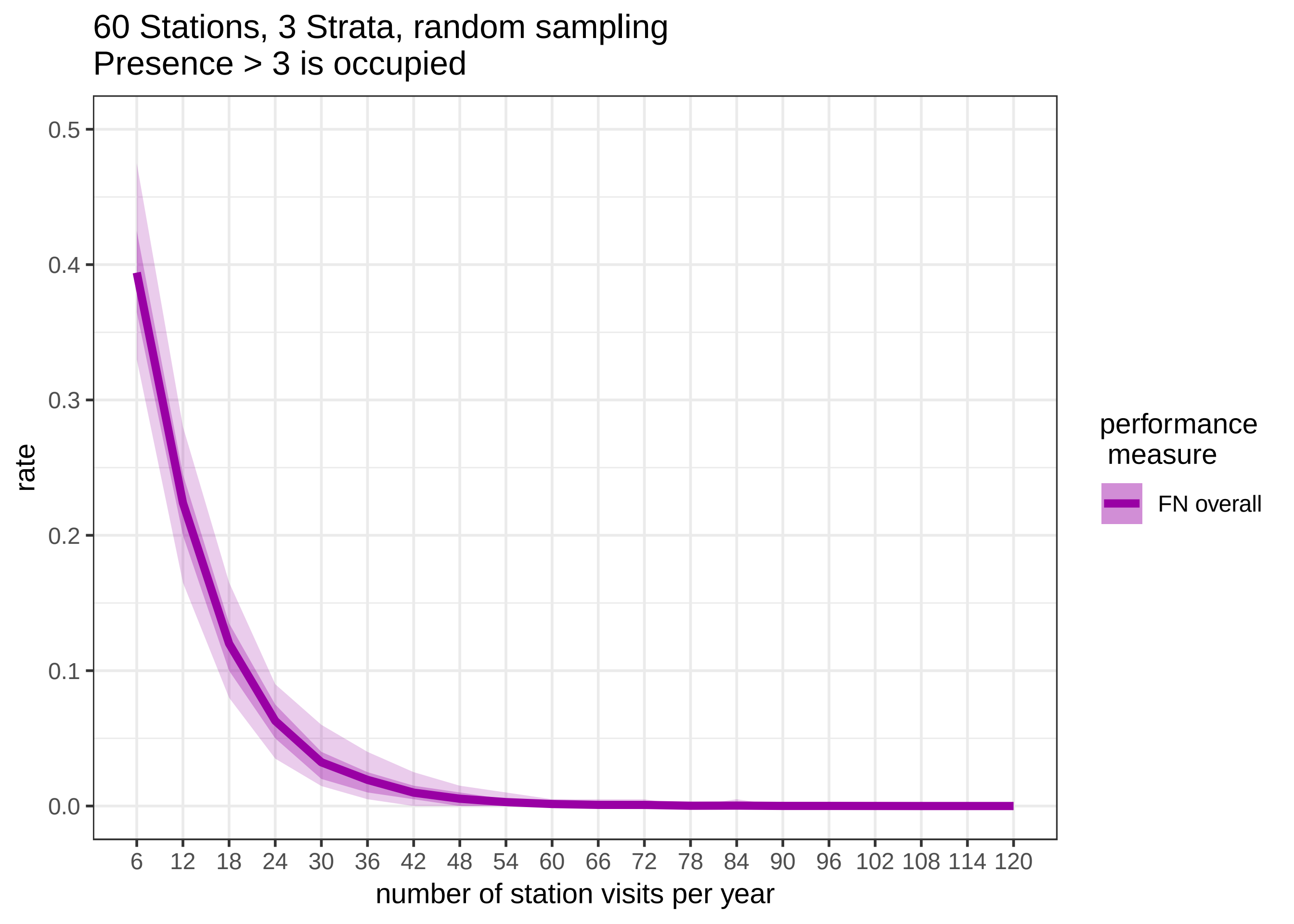
60 Stations, 3 Strata, random sampling
Presence > 0 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FN overall



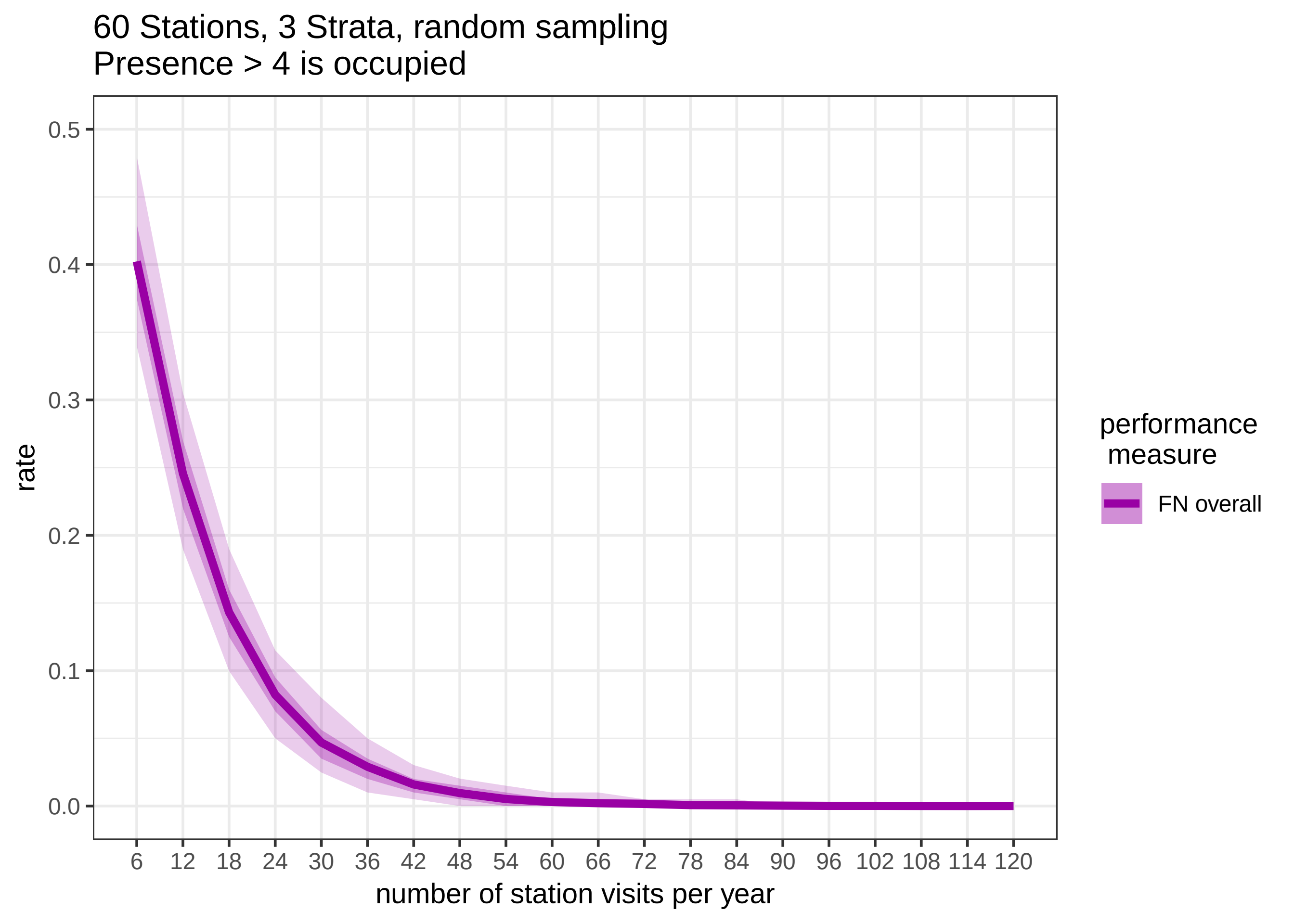
60 Stations, 3 Strata, random sampling
Presence > 1 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FN overall

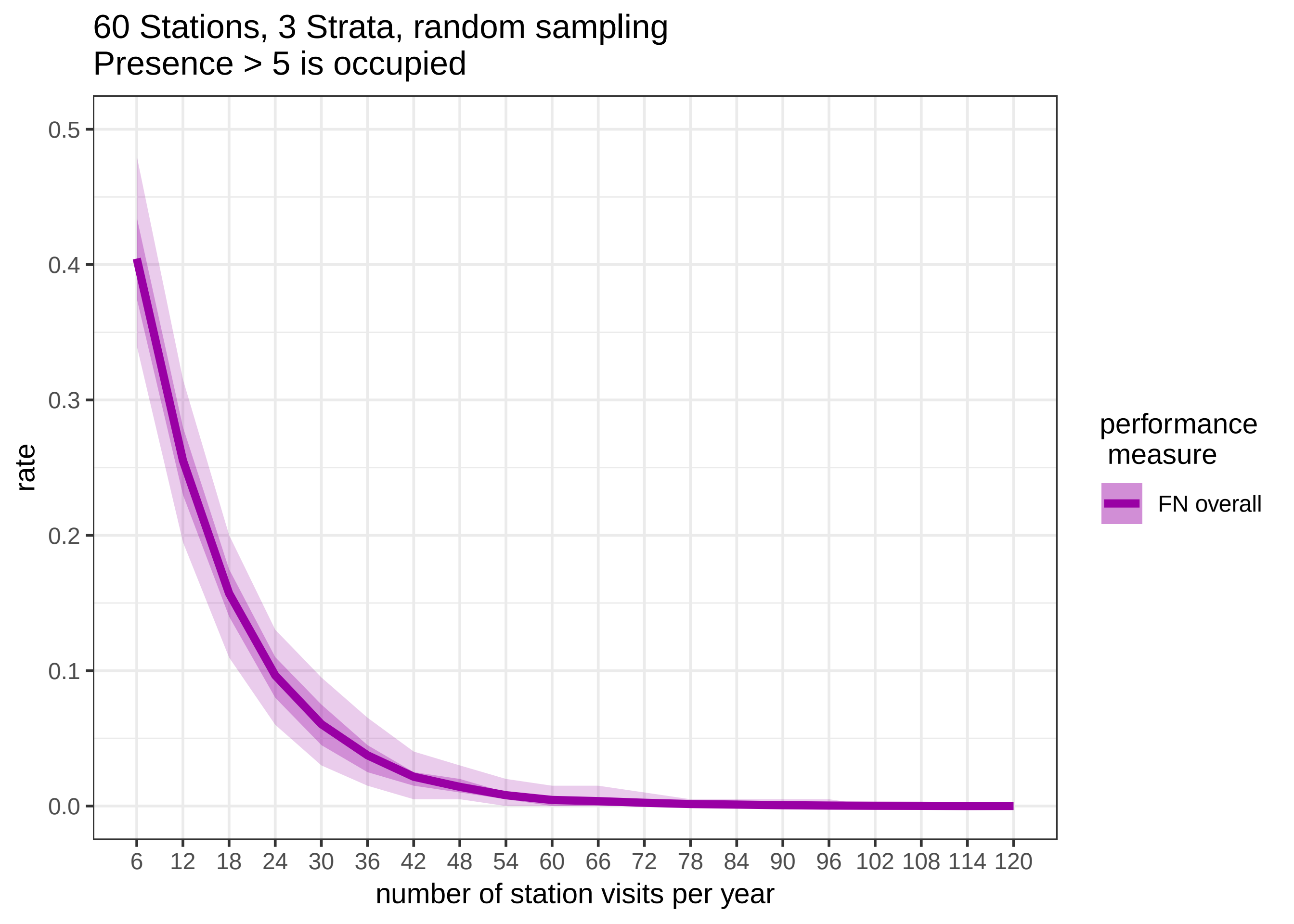


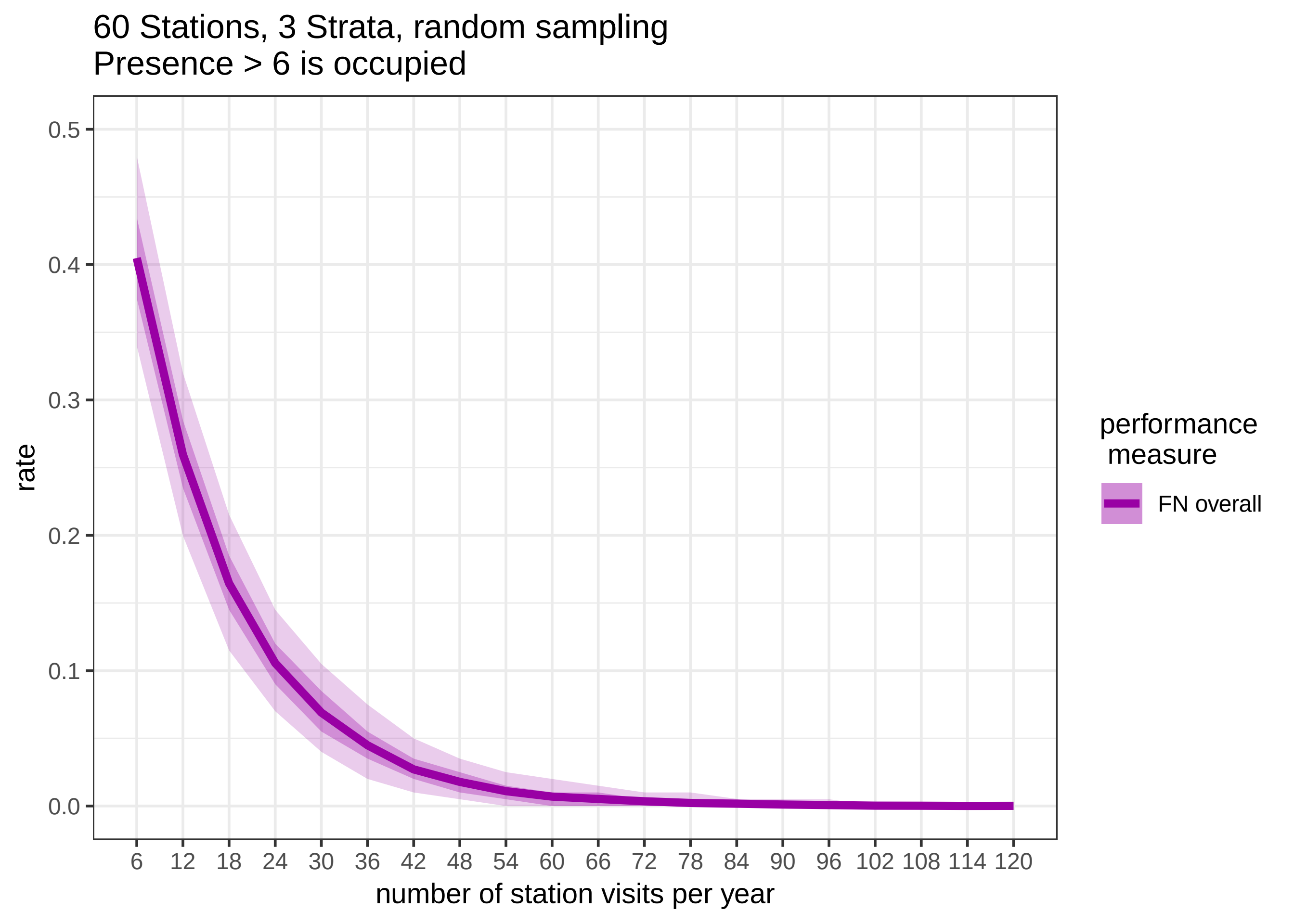
60 Stations, 3 Strata, random sampling
Presence > 2 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance
measure
FN overall

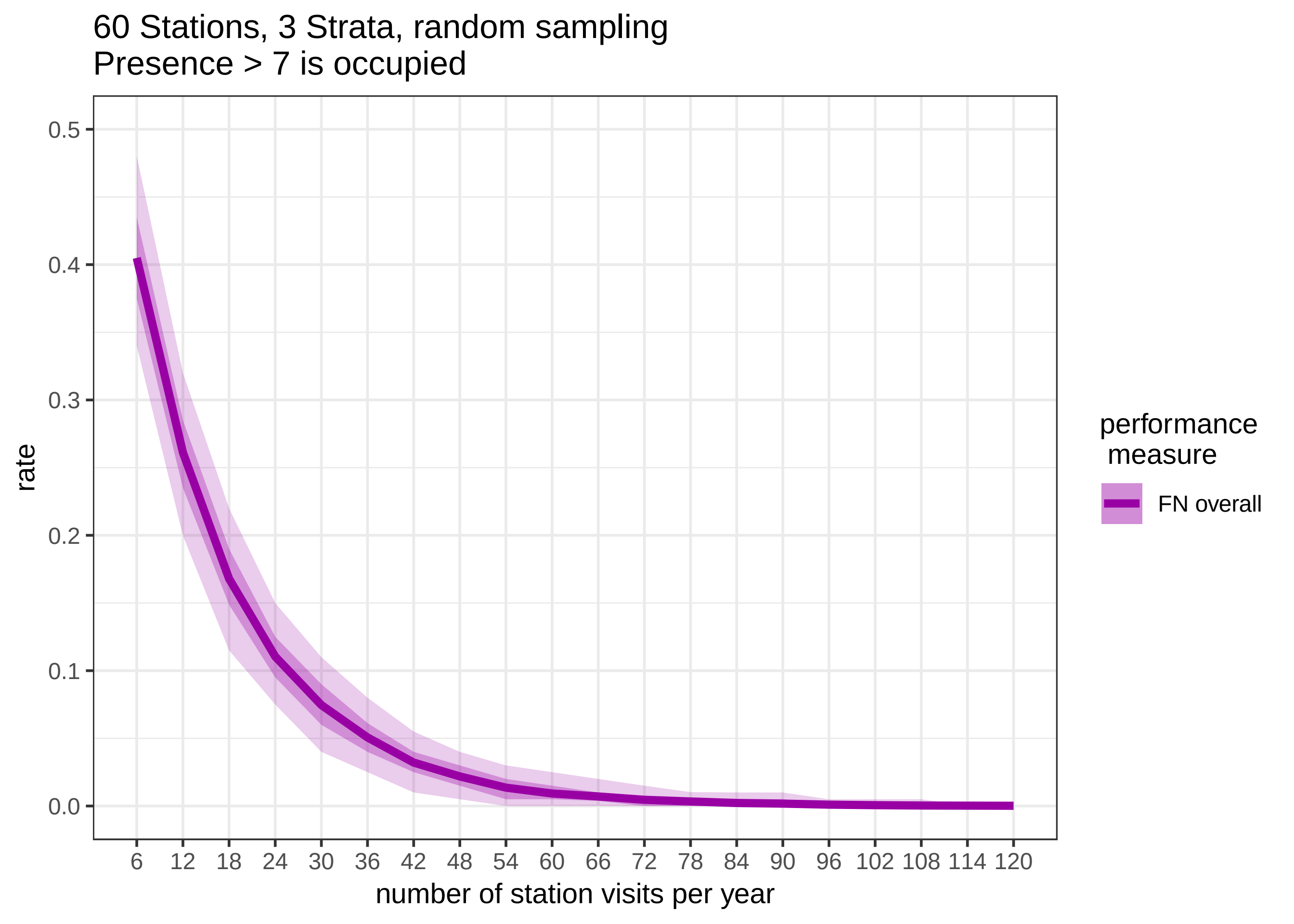


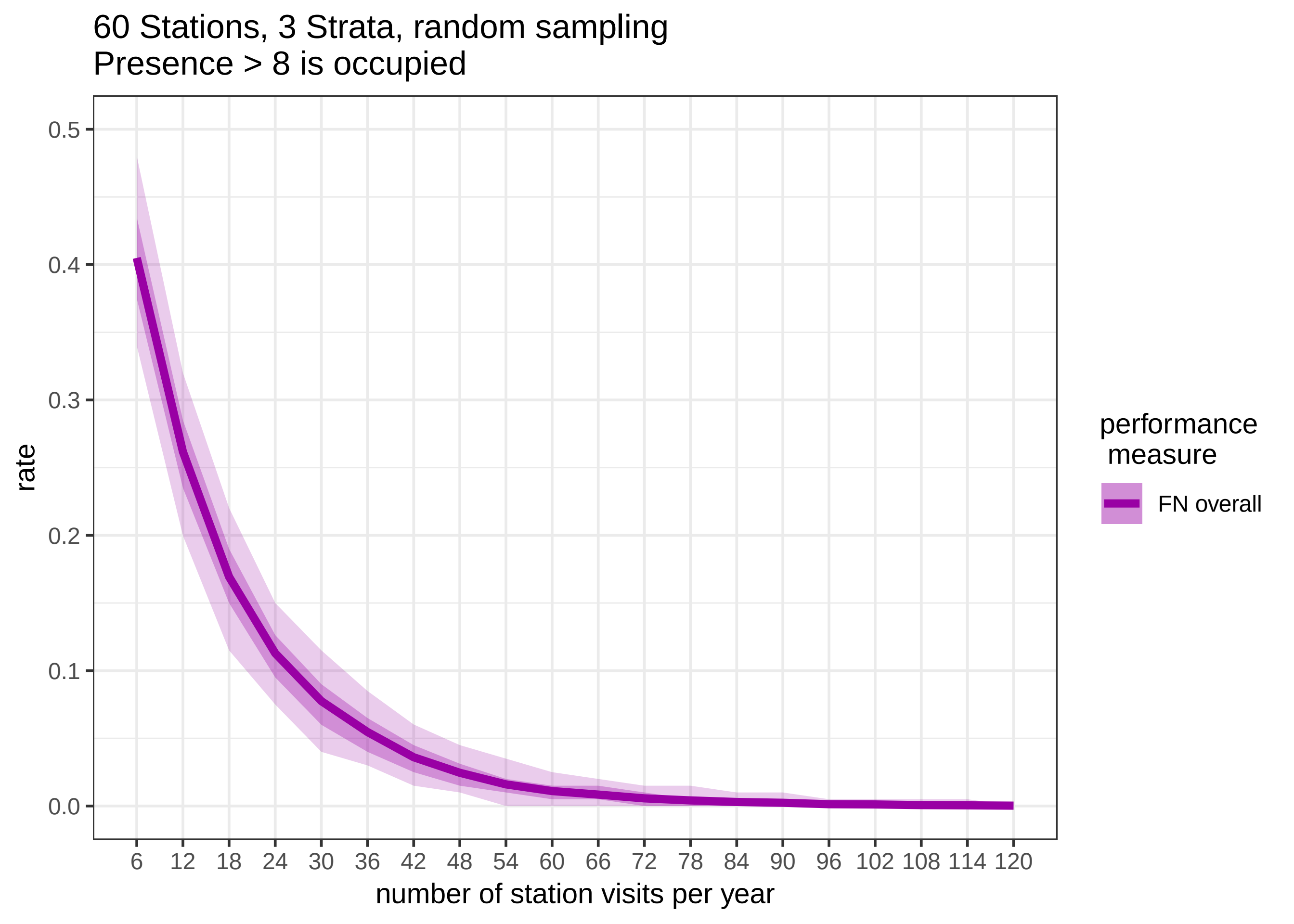
60 Stations, 3 Strata, random sampling
Presence > 3 is occupied
0.5
0.4
0.3
0.2
0.1
0.0
rate
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FN overall

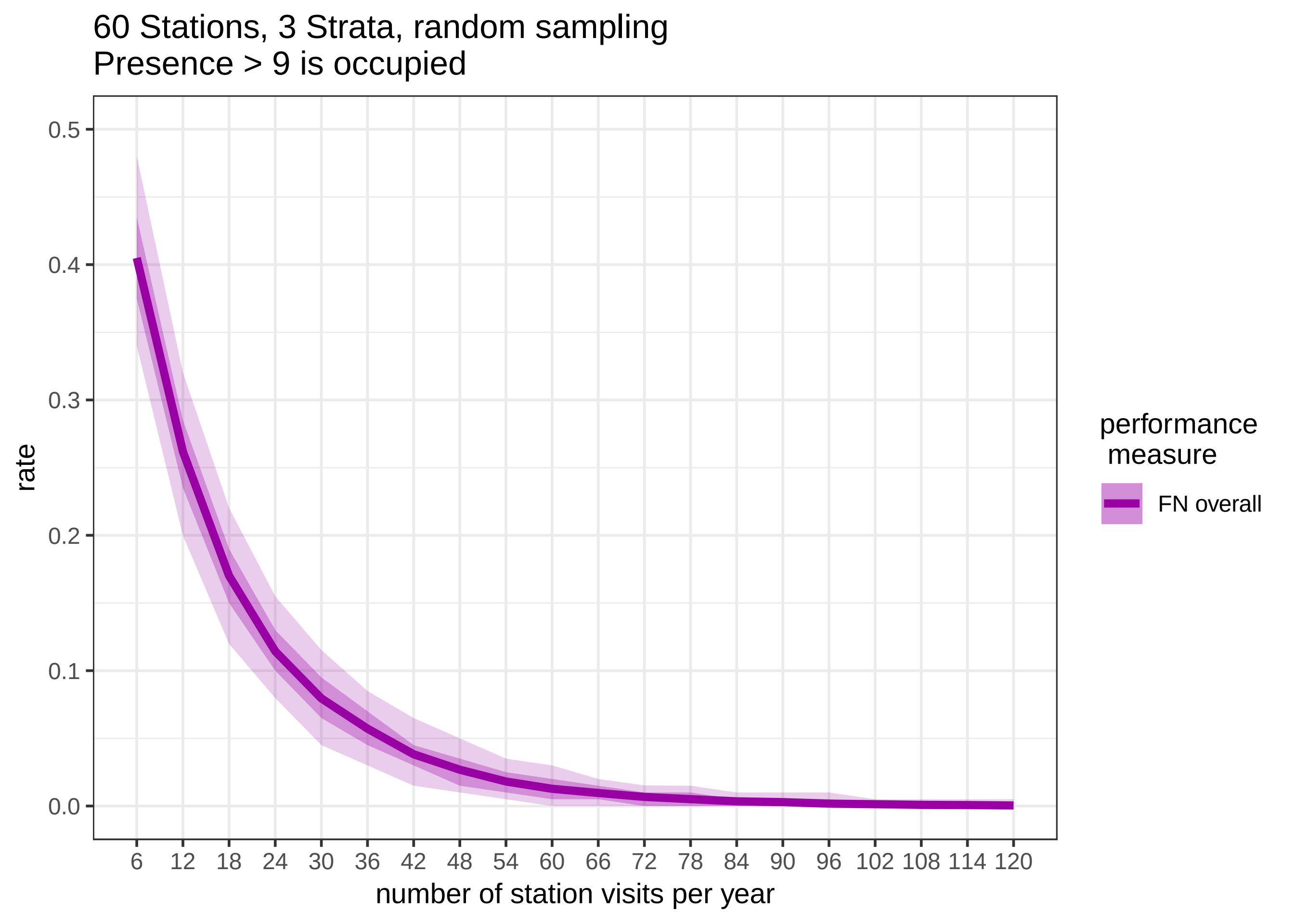

60 Stations, 3 Strata, random sampling
Presence > 4 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FN overall

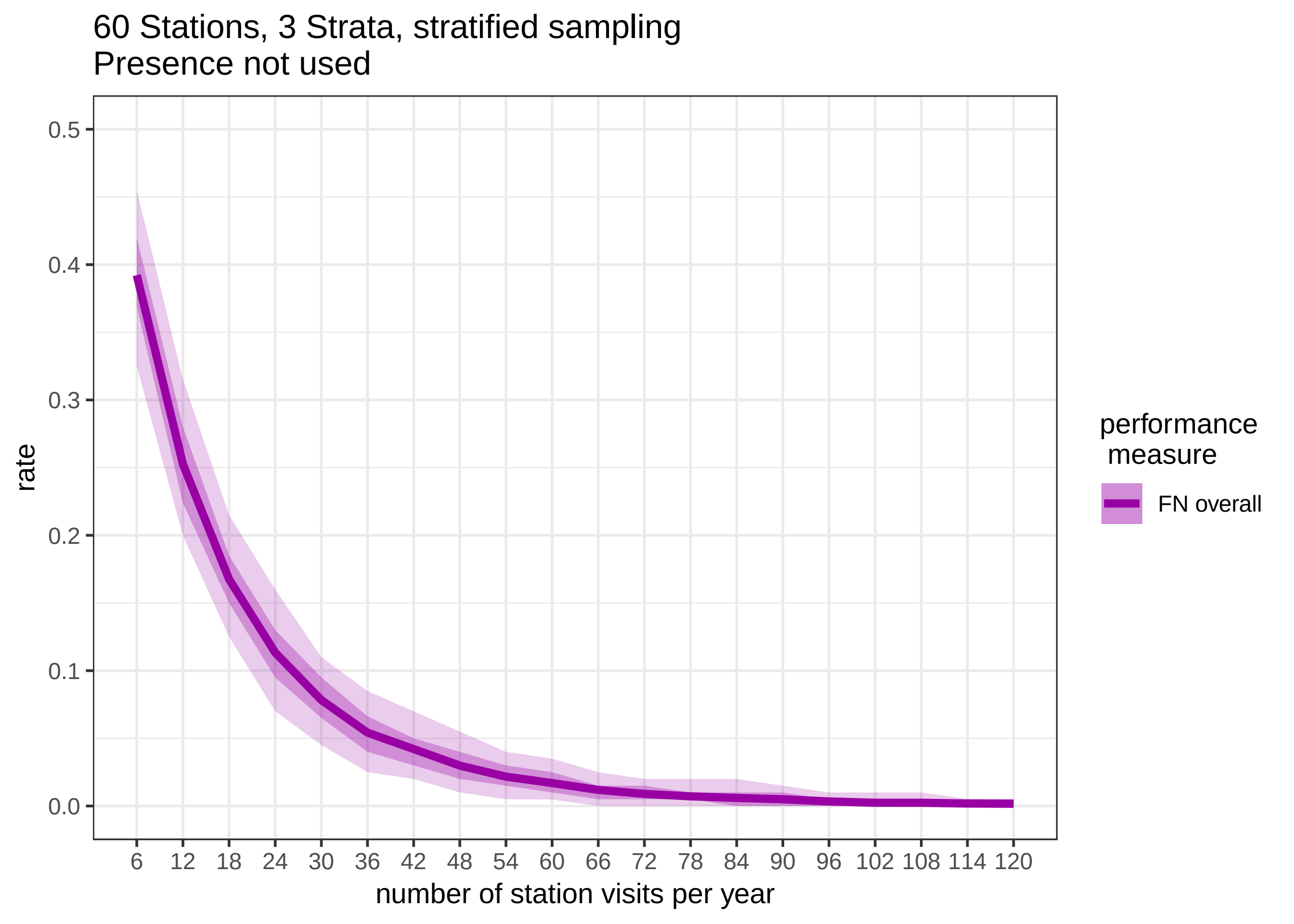

60 Stations, 3 Strata, random sampling
Presence > 5 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance
measure
FN overall

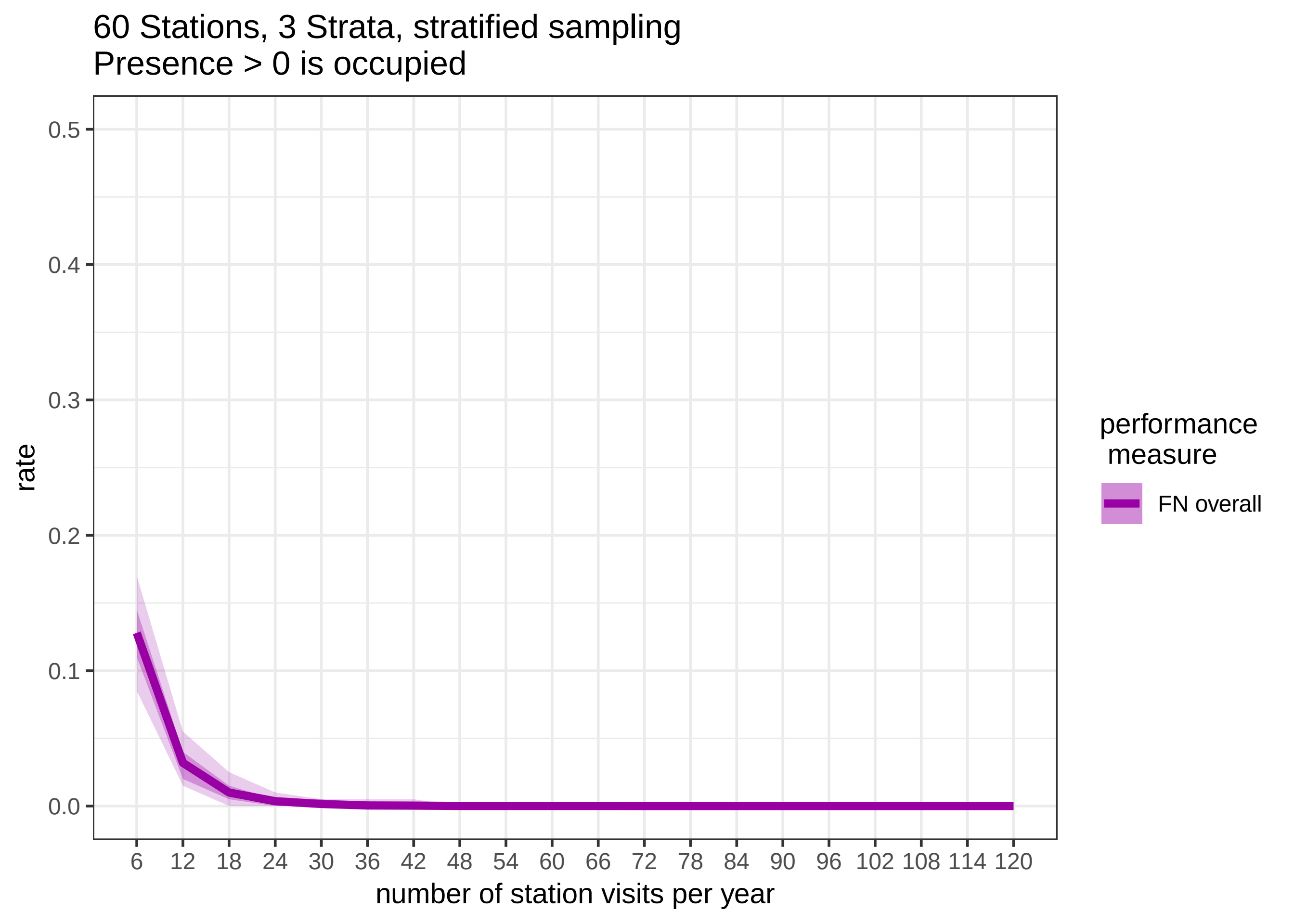

60 Stations, 3 Strata, random sampling
Presence > 6 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FN overall

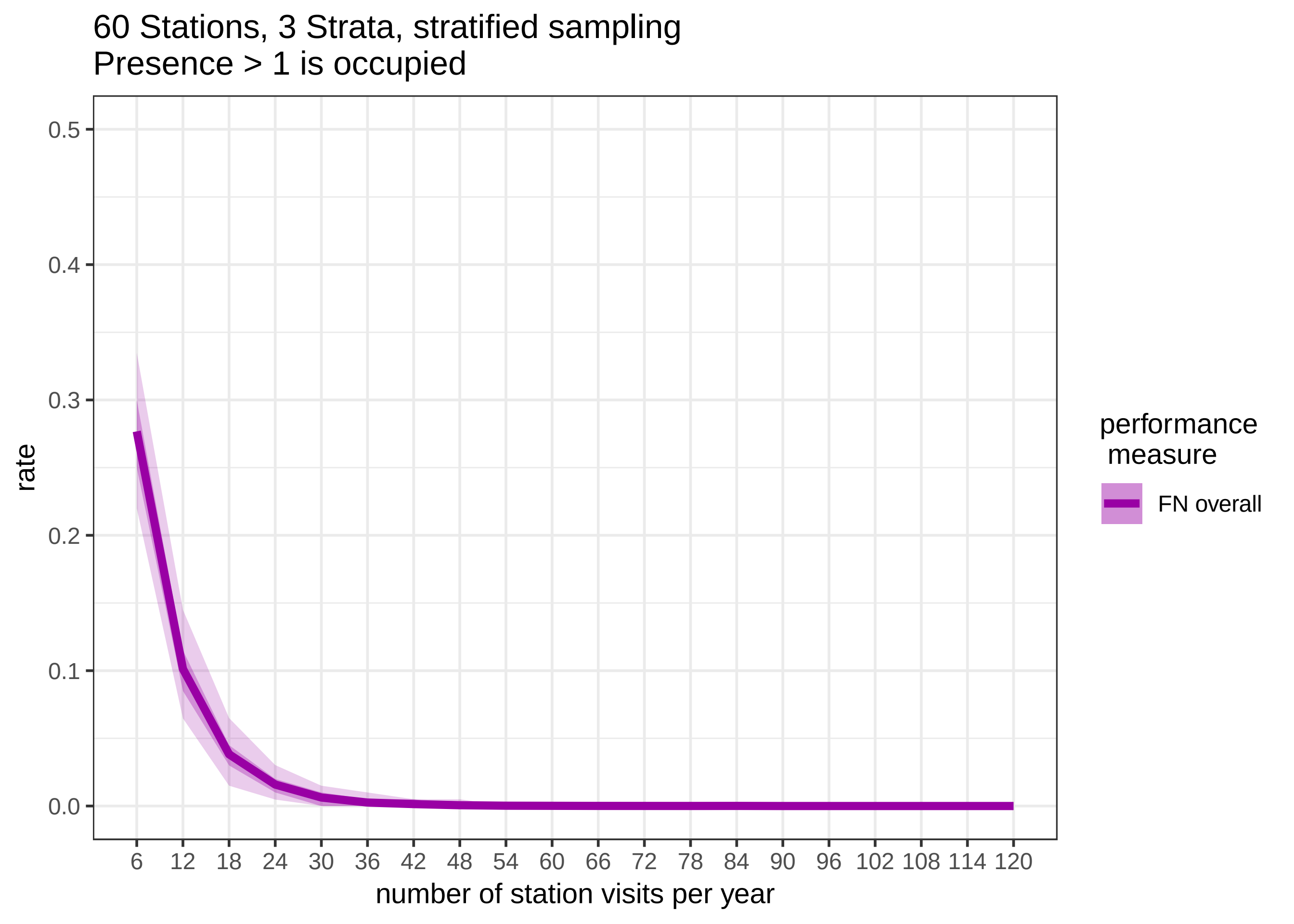

60 Stations, 3 Strata, random sampling
Presence > 7 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance
measure
FN overall

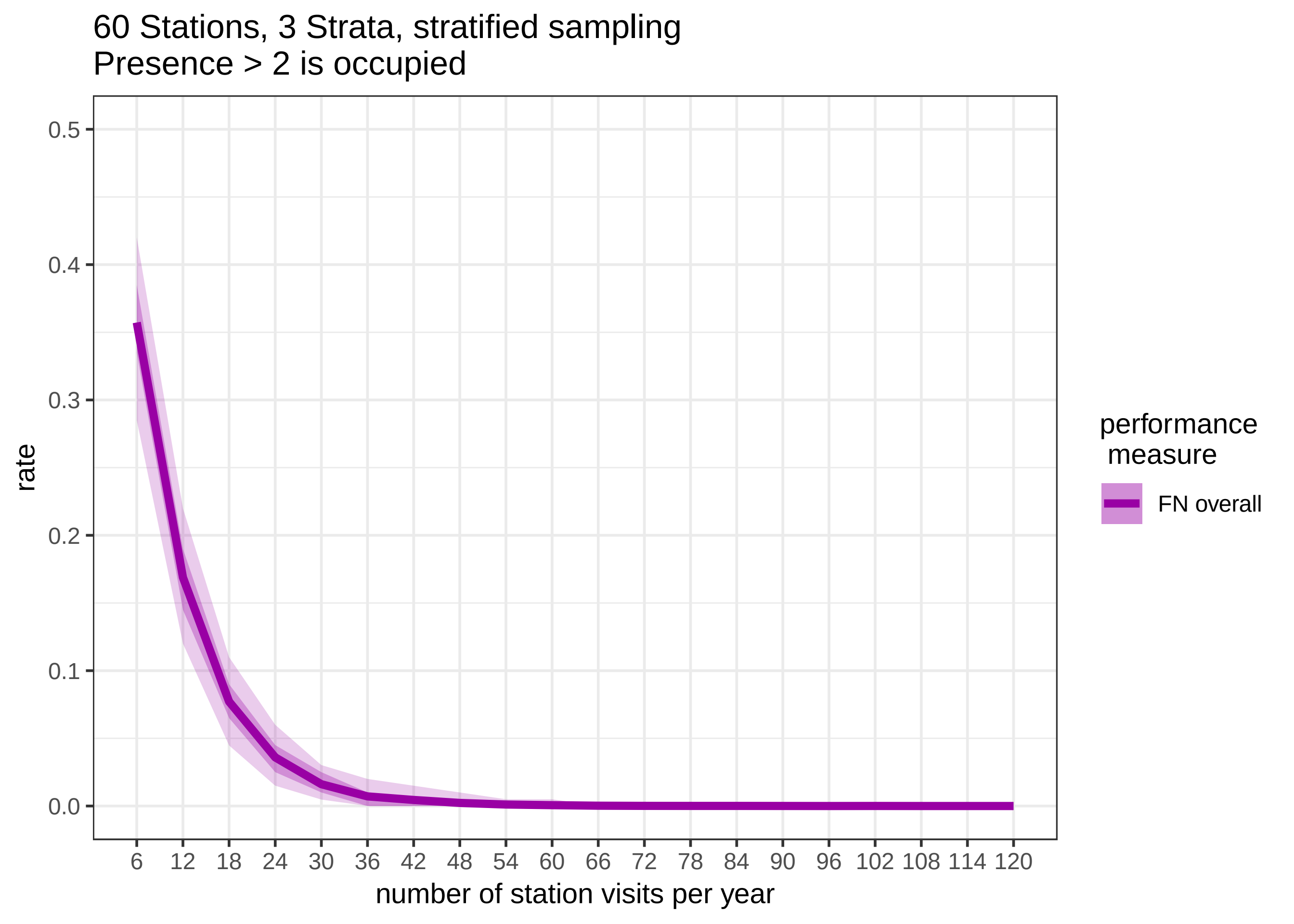

60 Stations, 3 Strata, random sampling
Presence > 8 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FN overall

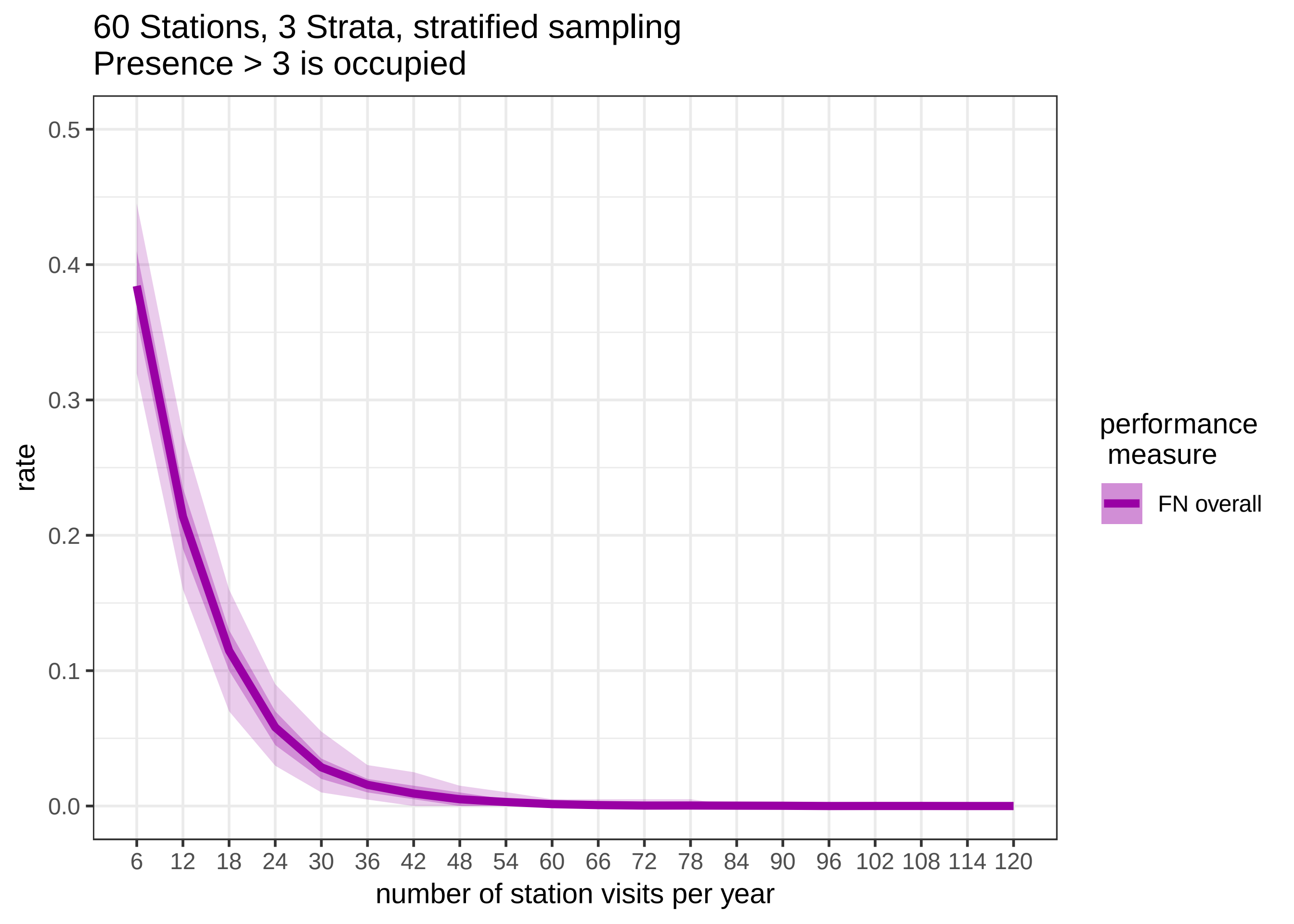

60 Stations, 3 Strata, random sampling
Presence > 9 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance
measure
FN overall


60 Stations, 3 Strata, stratified sampling
Presence not used
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FN overall

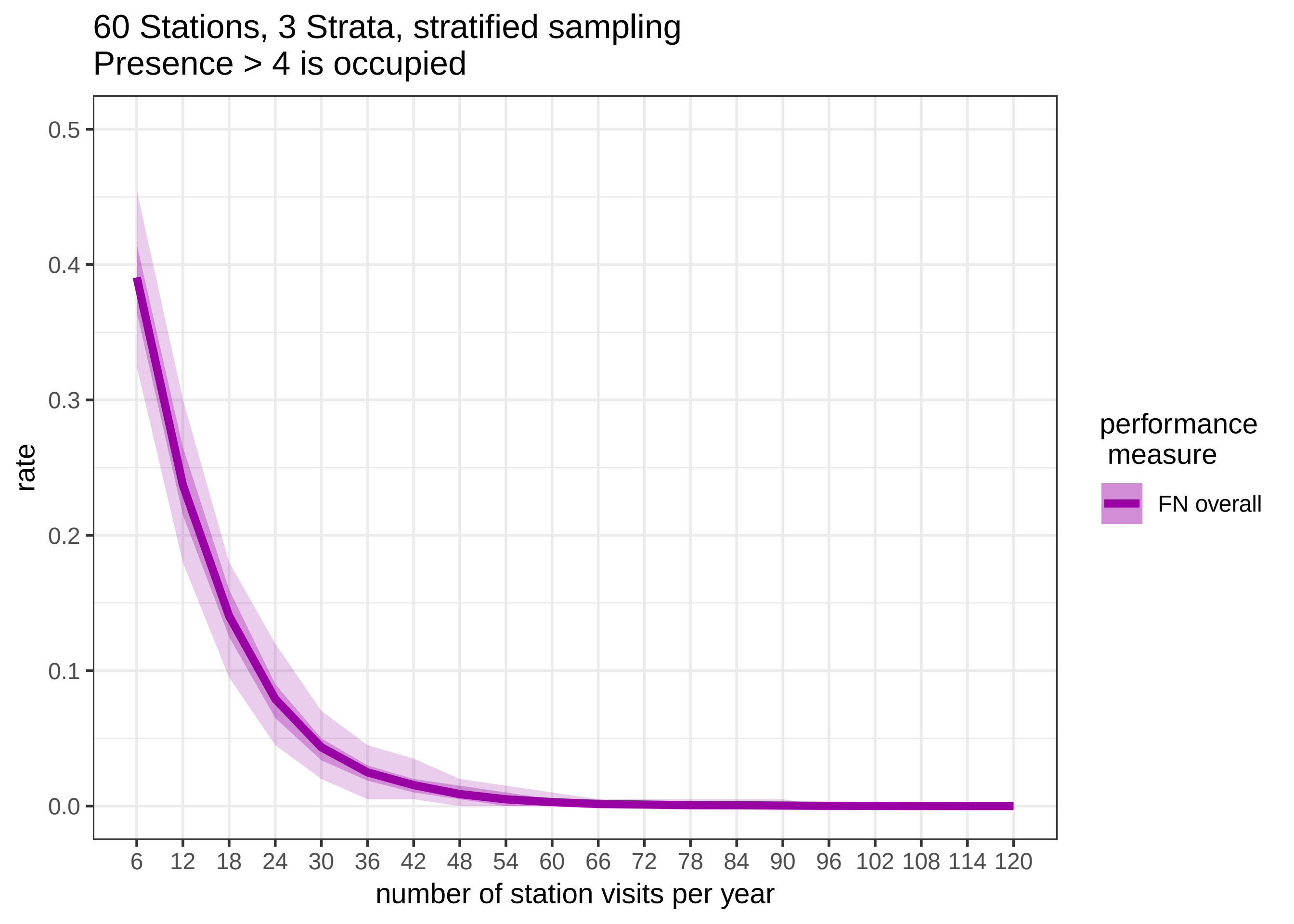

60 Stations, 3 Strata, stratified sampling
Presence > 0 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance
measure
FN overall


60 Stations, 3 Strata, stratified sampling
Presence > 1 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance
measure
FN overall

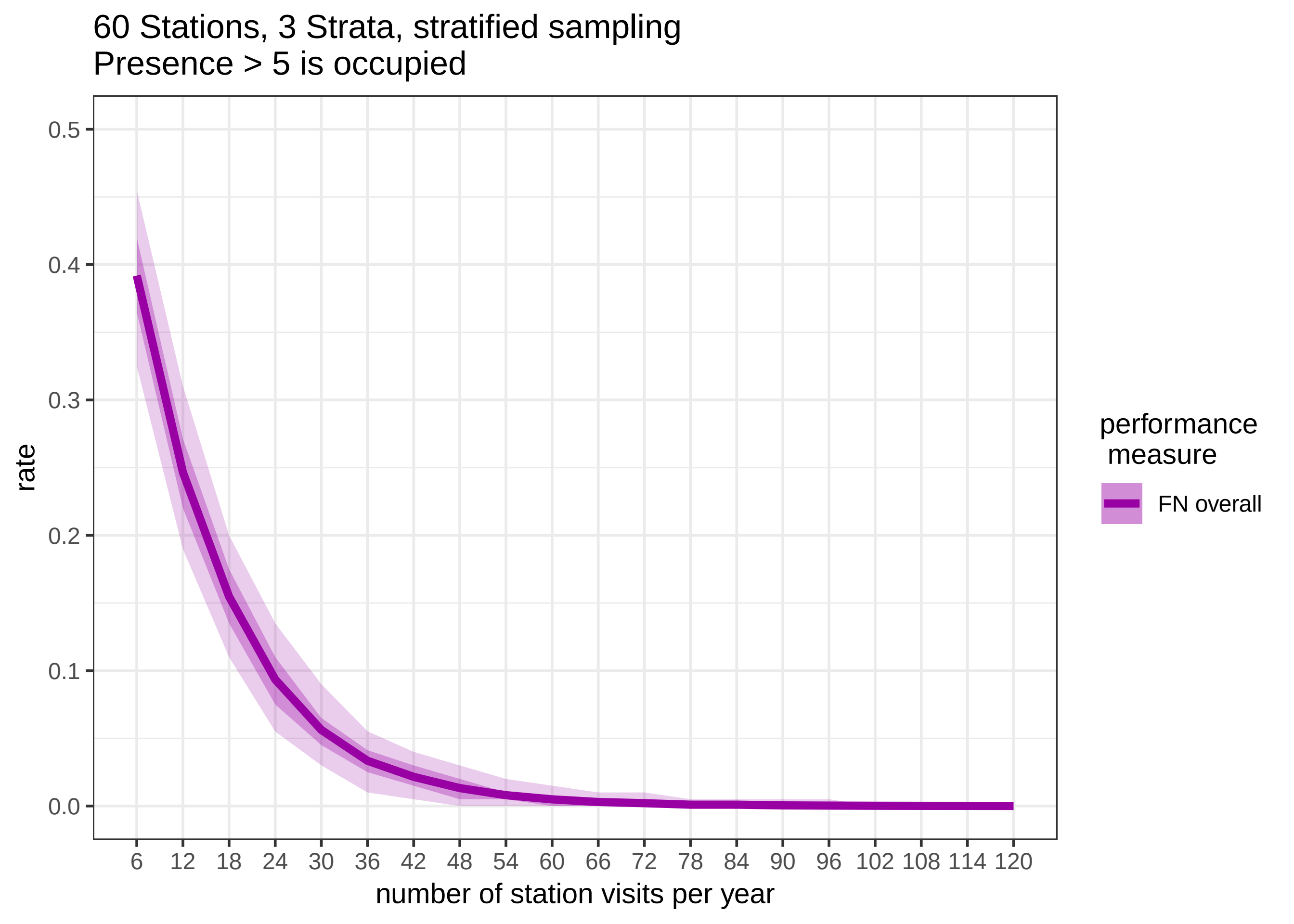

60 Stations, 3 Strata, stratified sampling
Presence > 2 is occupied
0.5
0.4
0.3
0.2
0.1
0.0
rate
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance
measure
FN overall



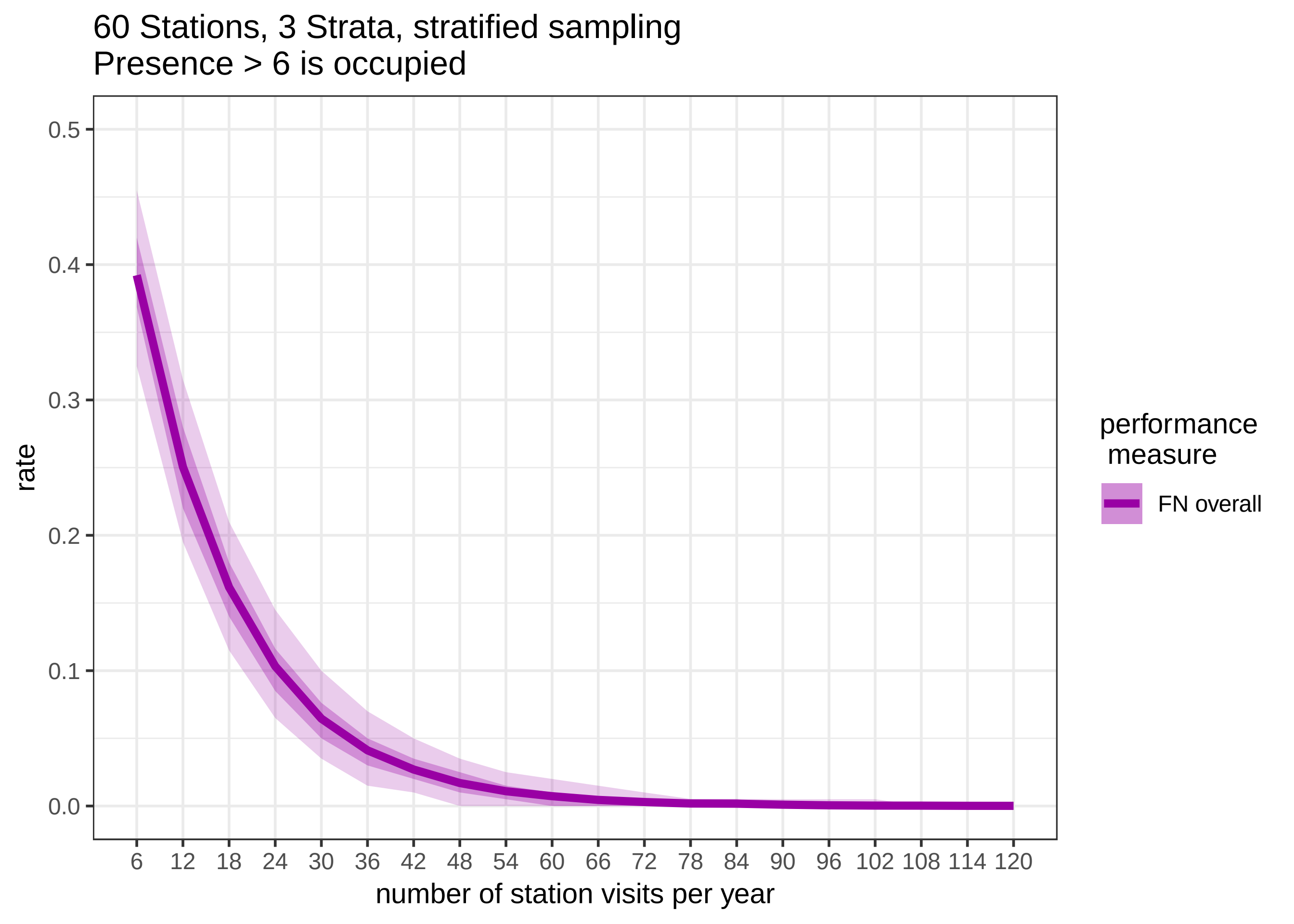
60 Stations, 3 Strata, stratified sampling
Presence > 3 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FN overall

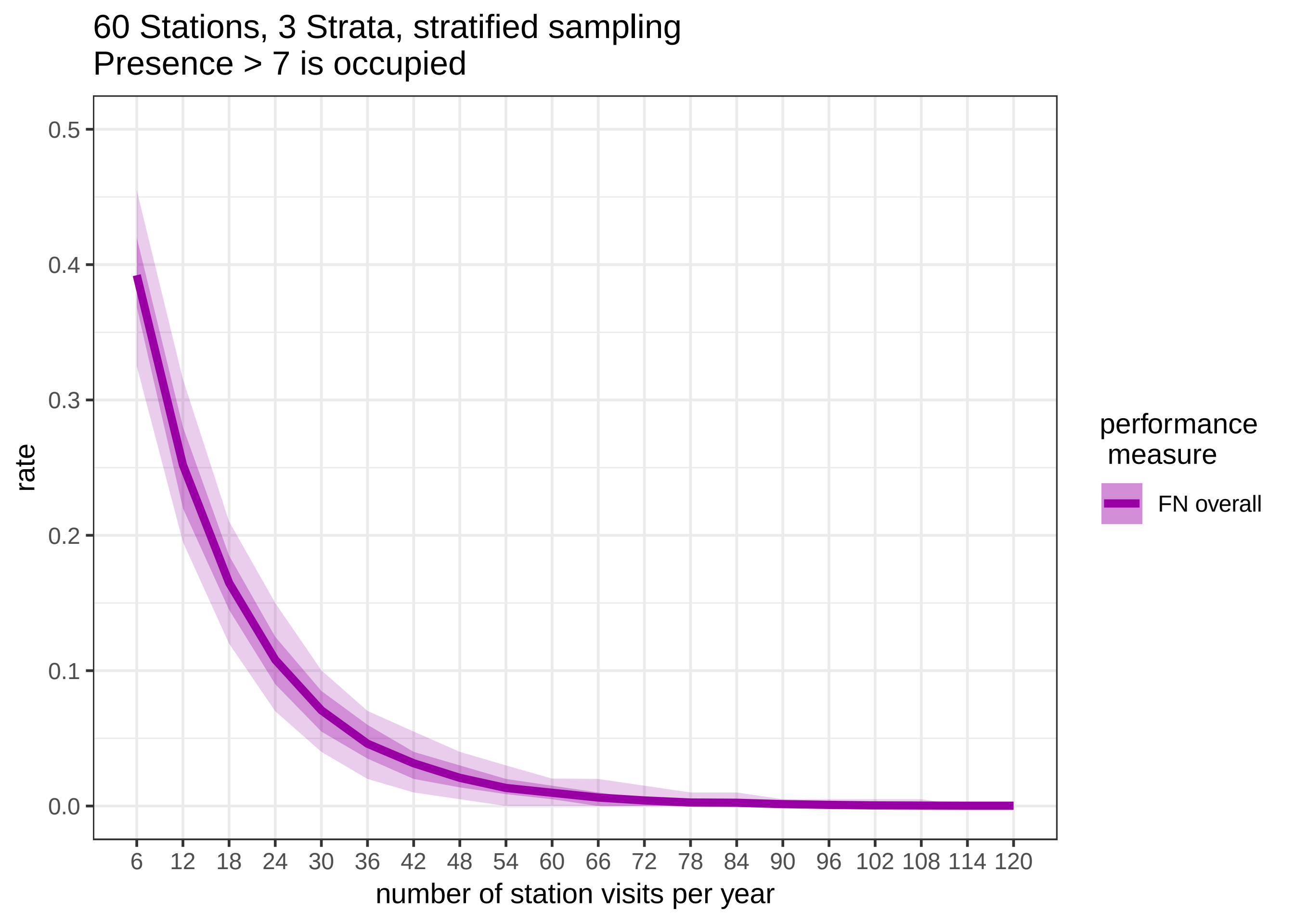


60 Stations, 3 Strata, stratified sampling
Presence > 4 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FN overall

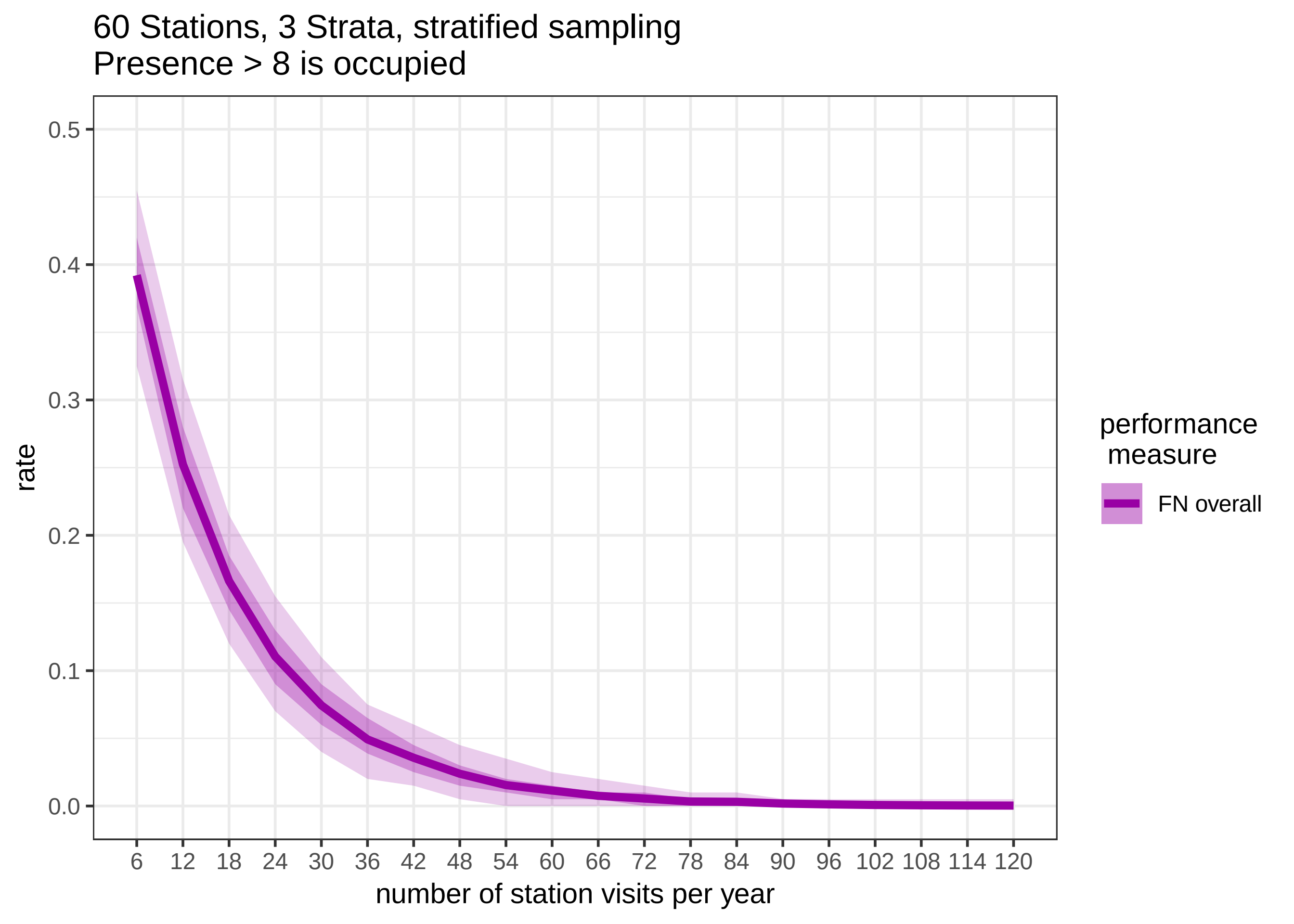


60 Stations, 3 Strata, stratified sampling
Presence > 5 is occupied
0.5
0.4
0.3
0.2
0.1
0.0
rate
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FN overall

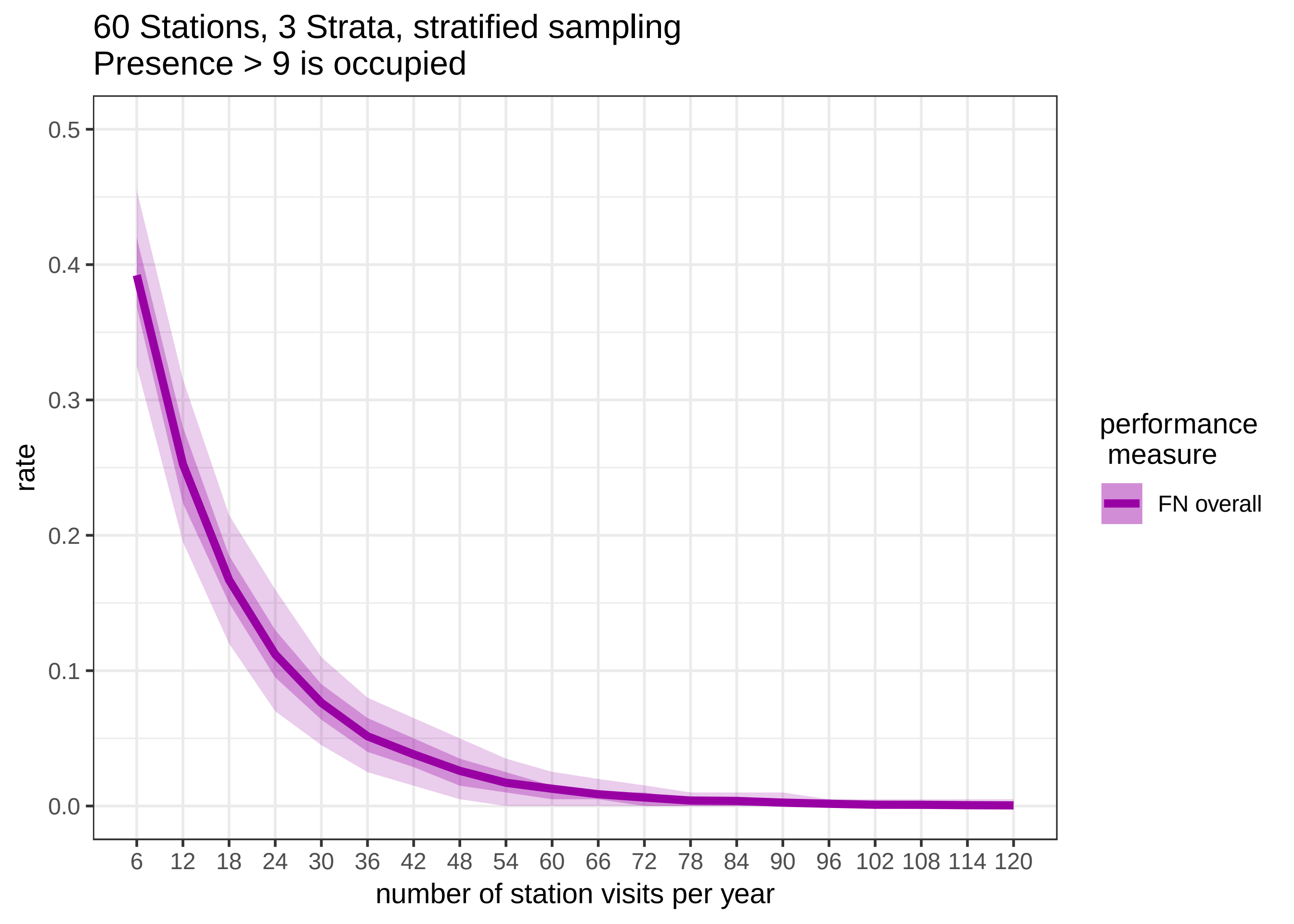

60 Stations, 3 Strata, stratified sampling
Presence > 6 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FN overall



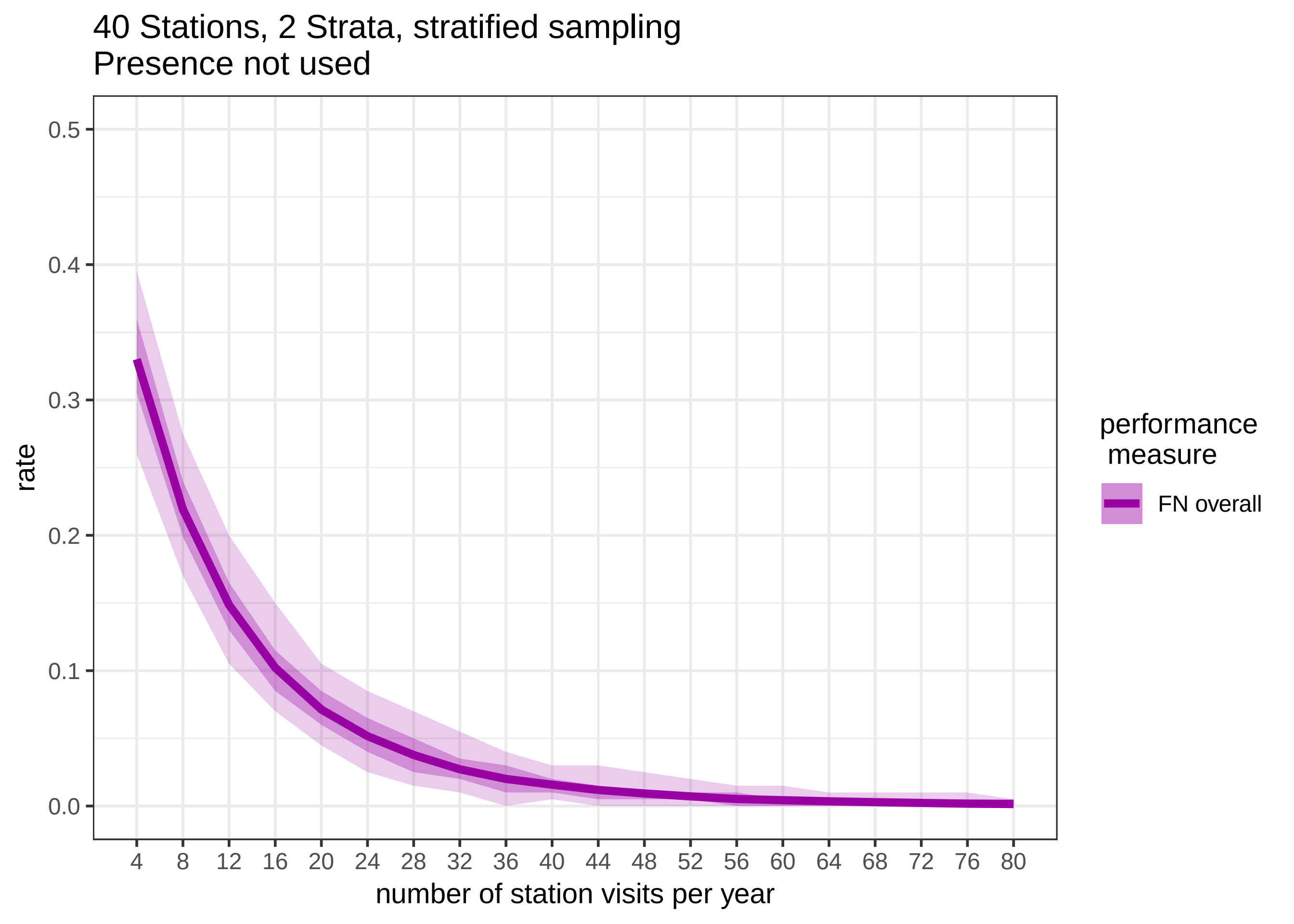
60 Stations, 3 Strata, stratified sampling
Presence > 7 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FN overall

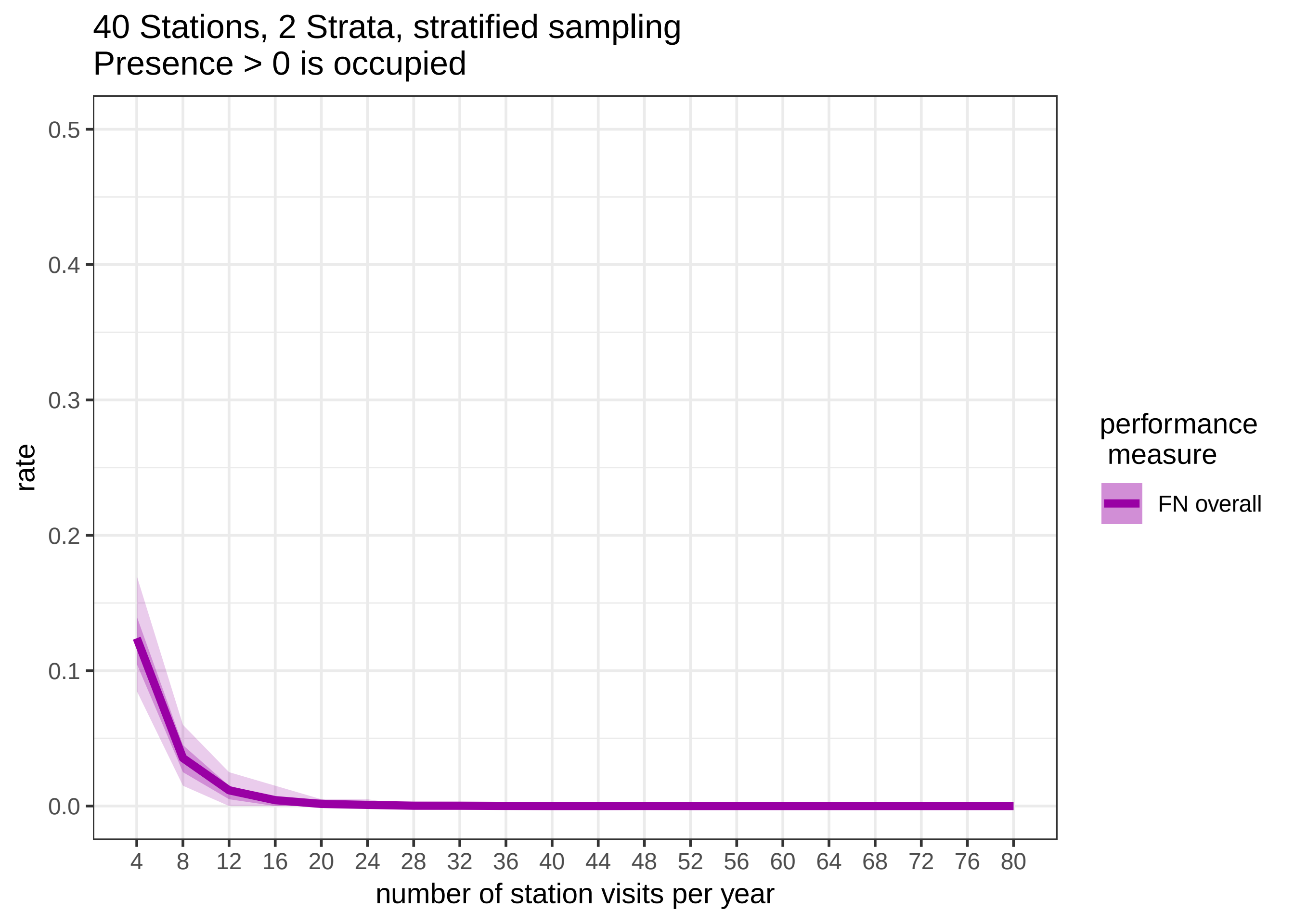


60 Stations, 3 Strata, stratified sampling
Presence > 8 is occupied
0.5
0.4
0.3
0.2
0.1
0.0
rate
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FN overall

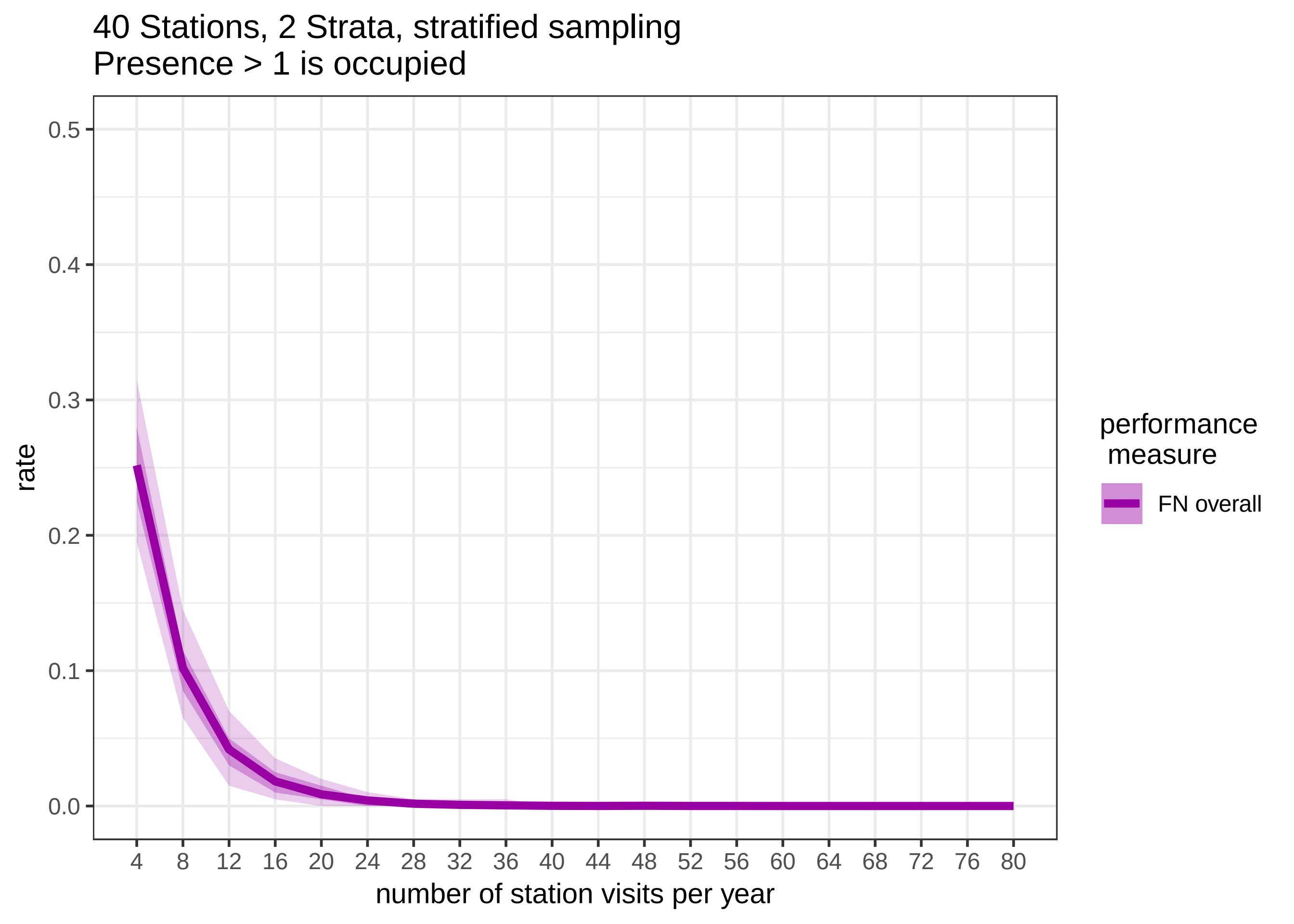


60 Stations, 3 Strata, stratified sampling
Presence > 9 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
6
12
18
24
30
36
42
48
54
60
66
72
78
84
90
96
102
108
114
120
number of station visits per year
performance measure
FN overall

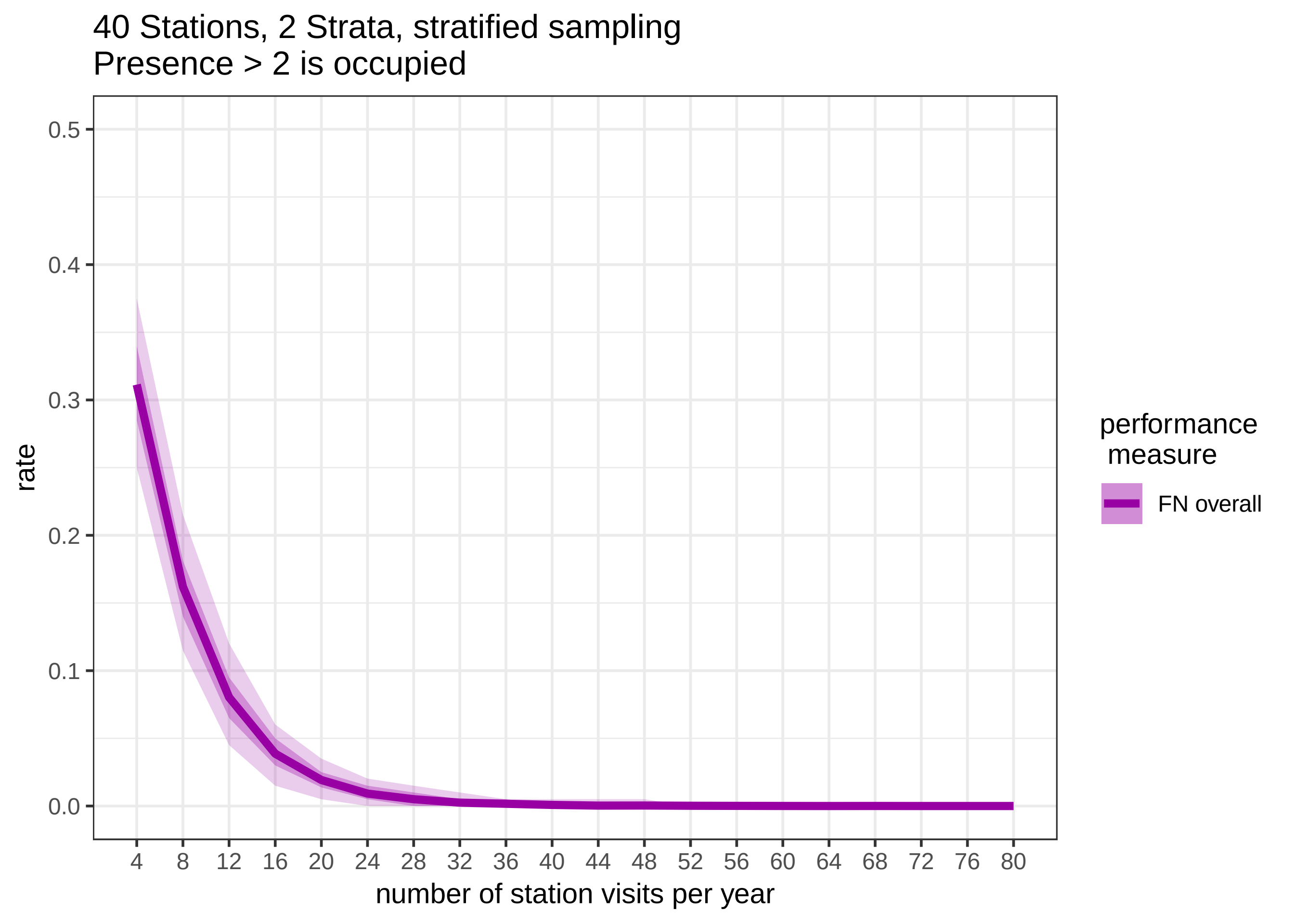

40 Stations, 2 Strata, stratified sampling
Presence not used
rate
0.0
0.1
0.2
0.3
0.4
0.5
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance
measure
FN overall

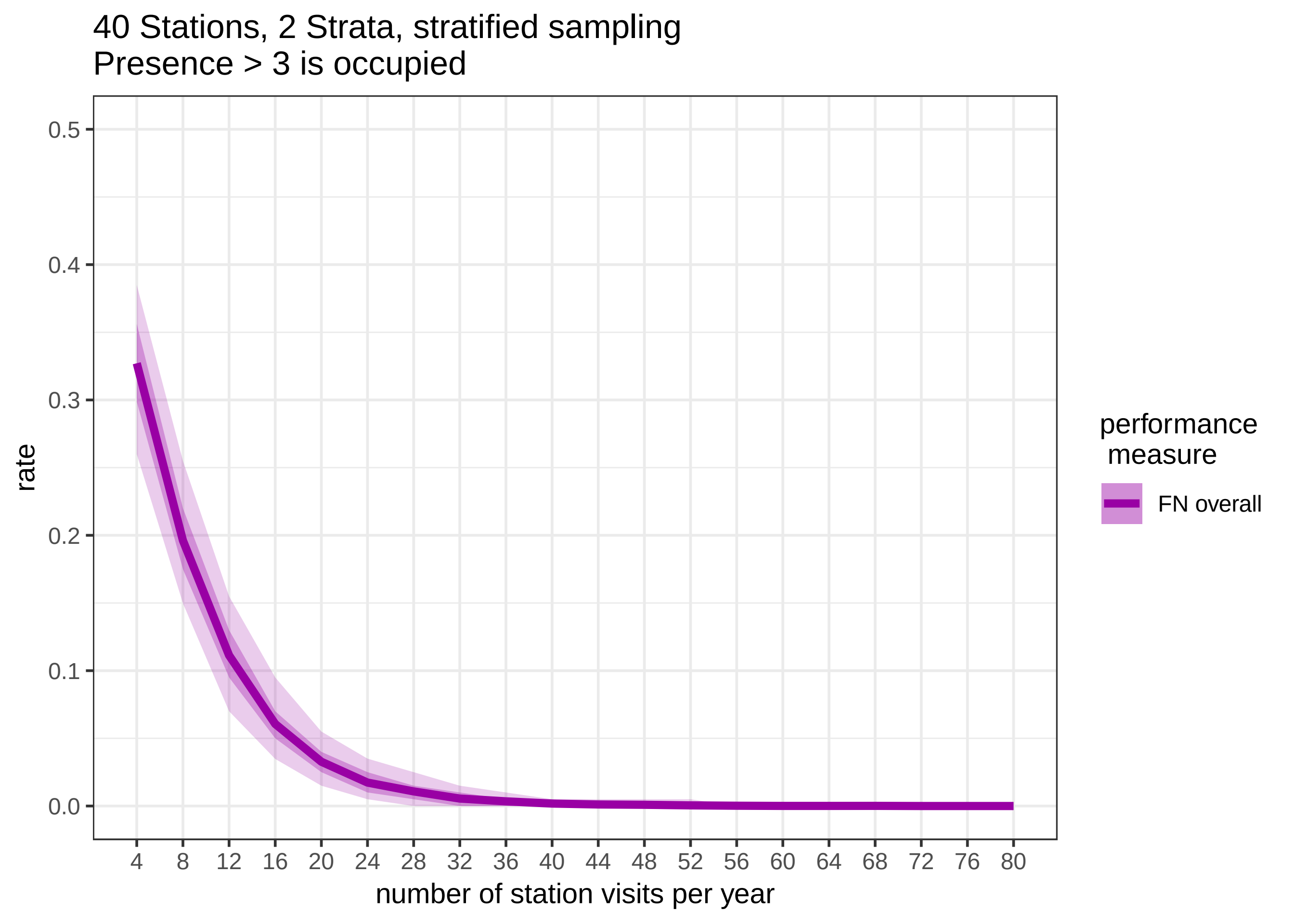


40 Stations, 2 Strata, stratified sampling
Presence > 0 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FN overall

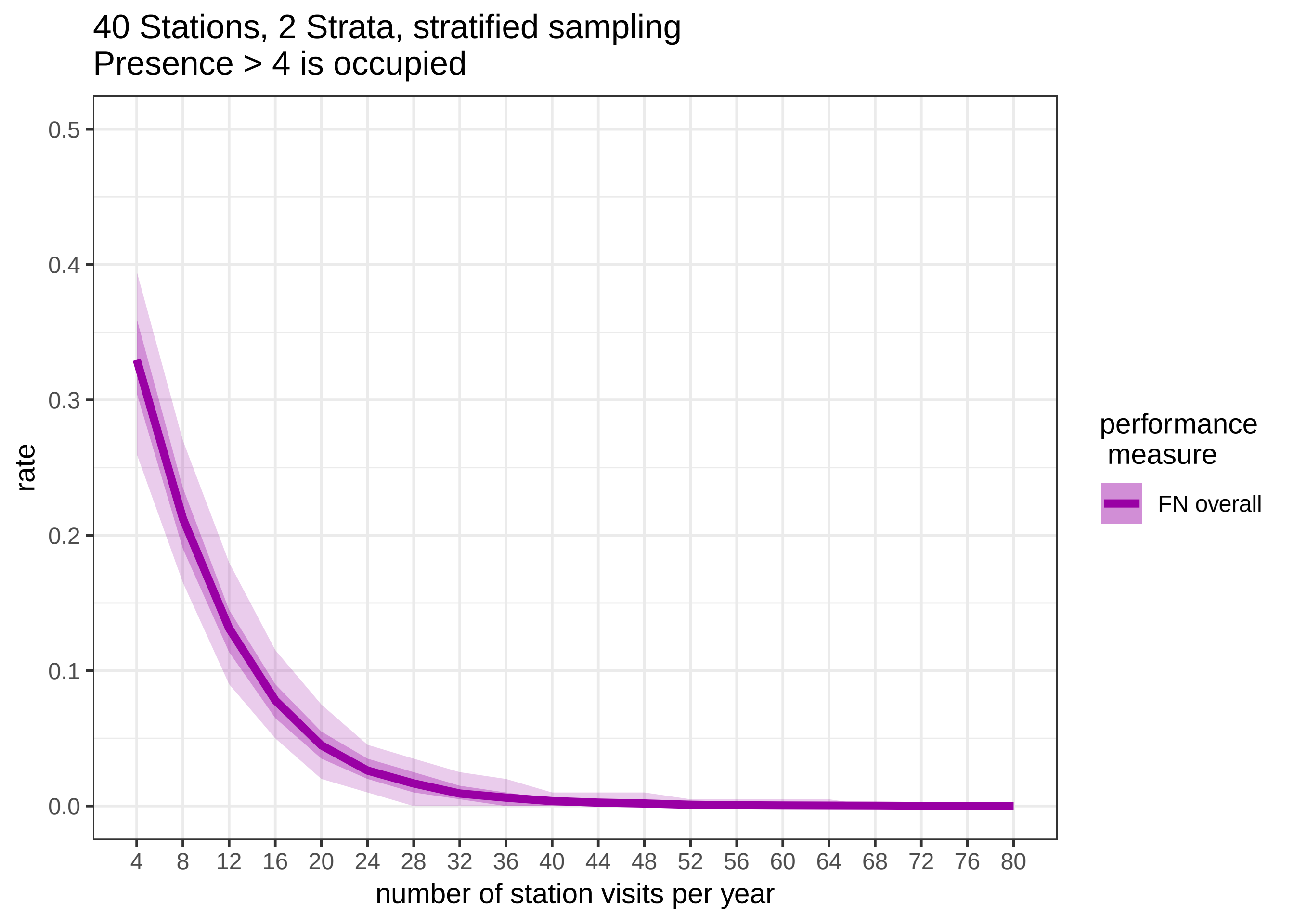


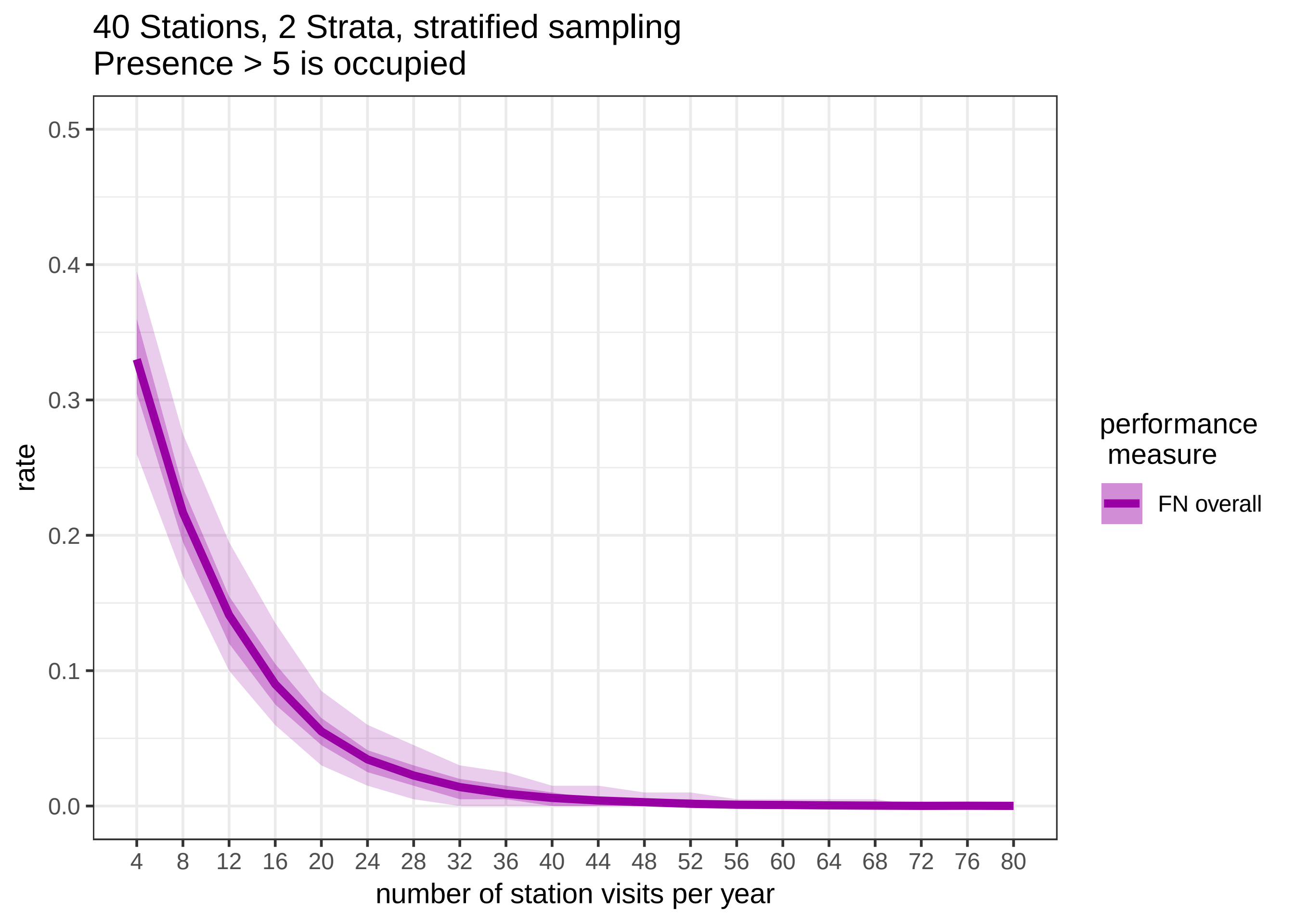
40 Stations, 2 Strata, stratified sampling
Presence > 1 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FN overall

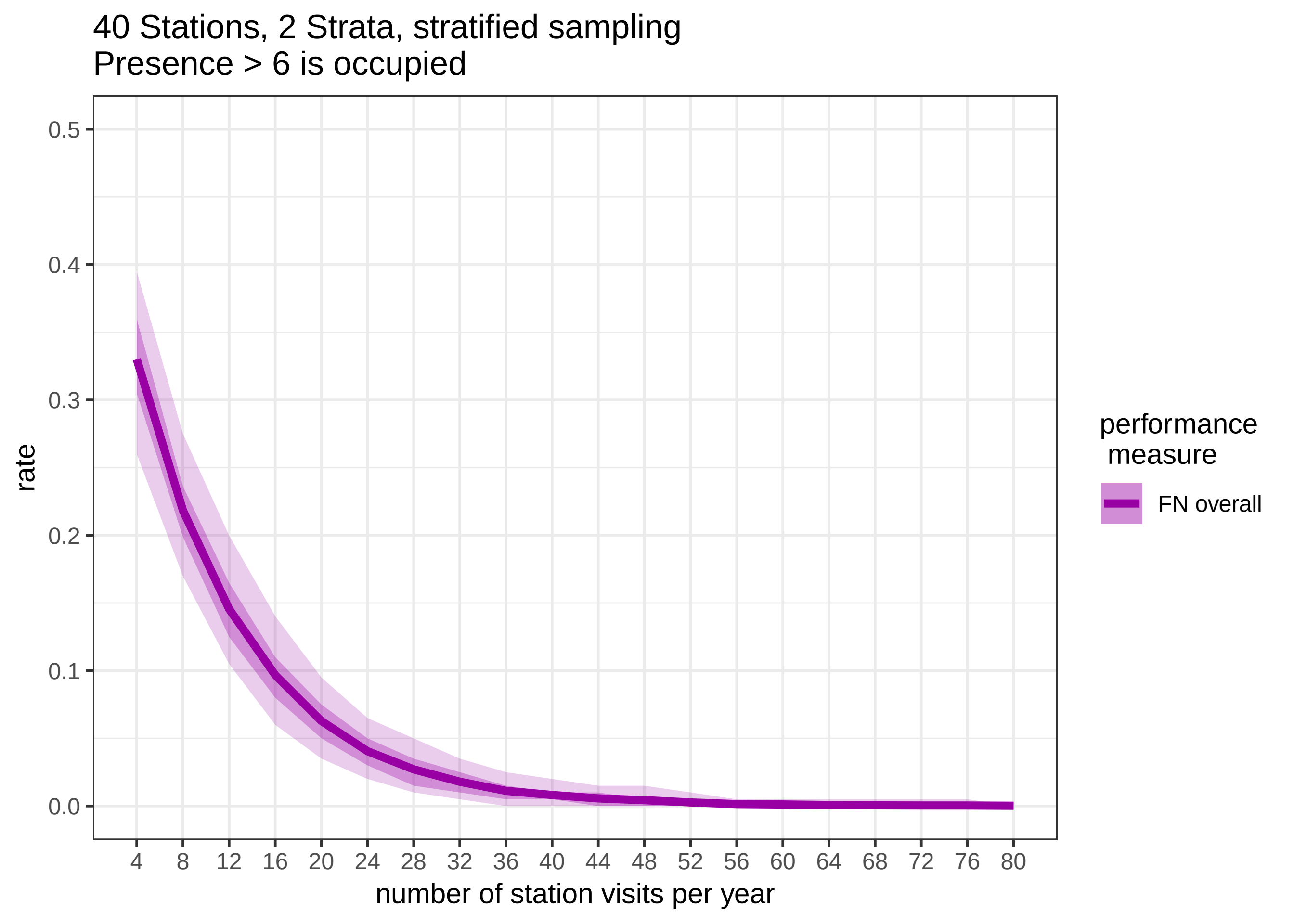

40 Stations, 2 Strata, stratified sampling
Presence > 2 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FN overall



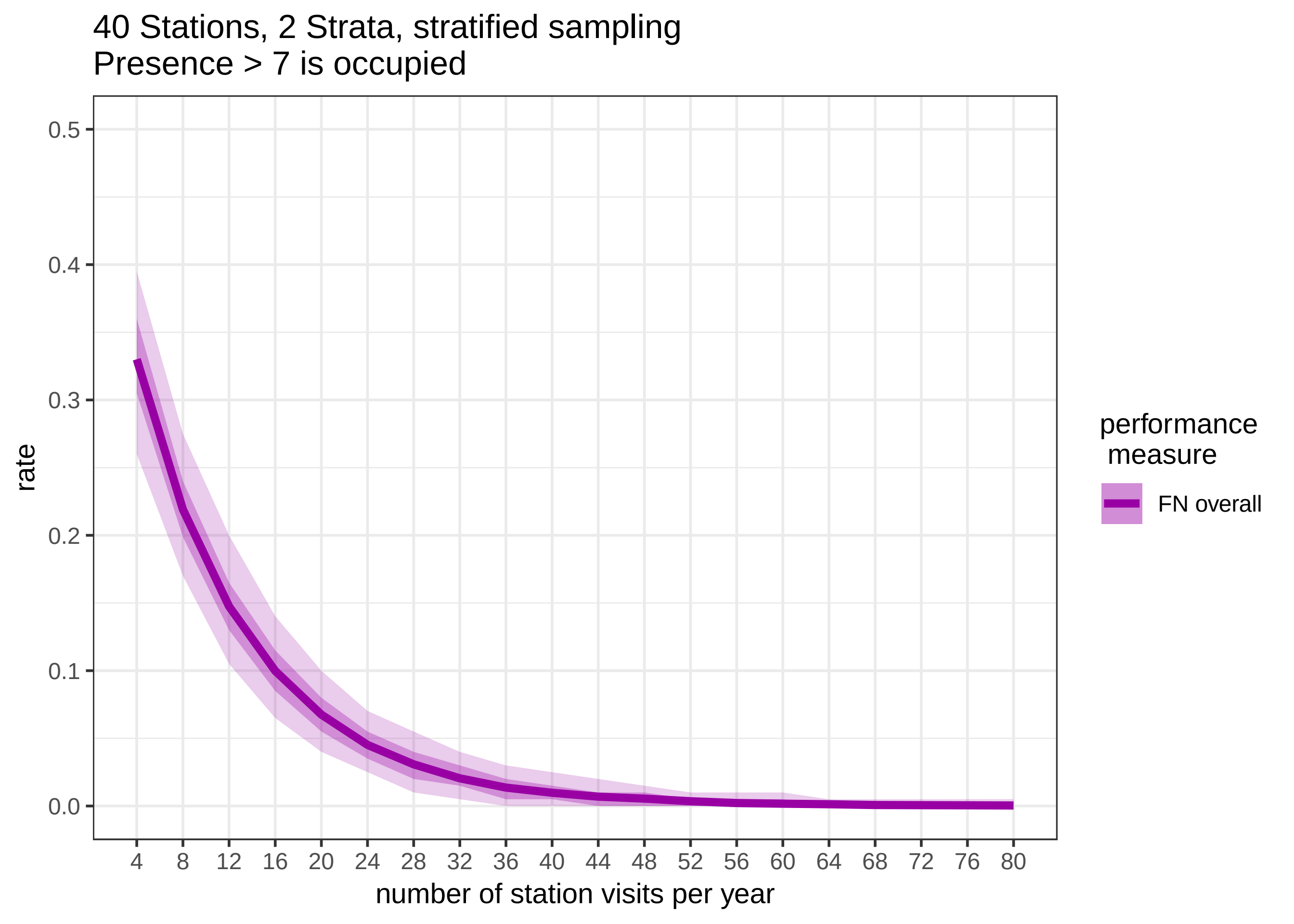
40 Stations, 2 Strata, stratified sampling
Presence > 3 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FN overall

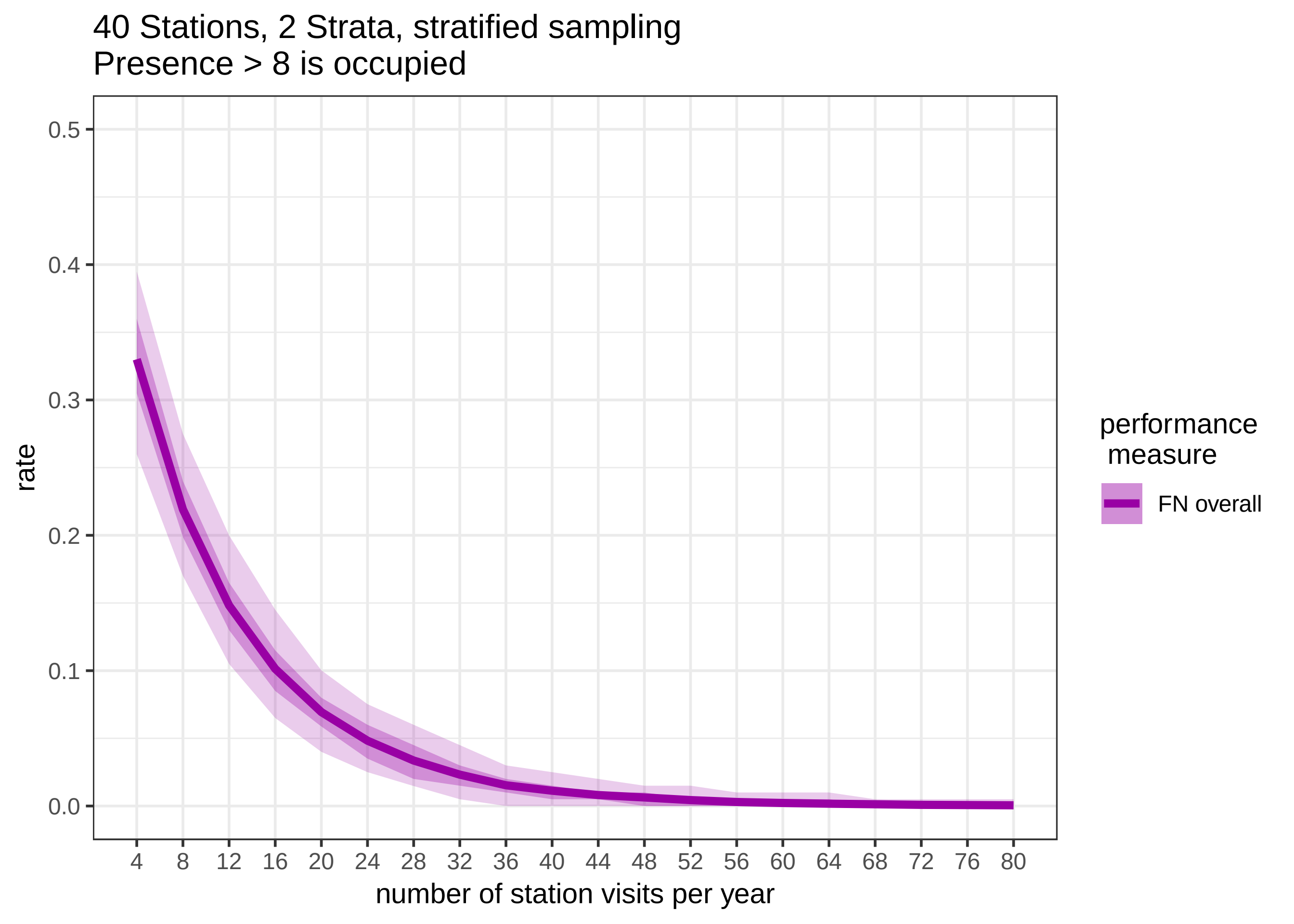

40 Stations, 2 Strata, stratified sampling
Presence > 4 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance
measure
FN overall

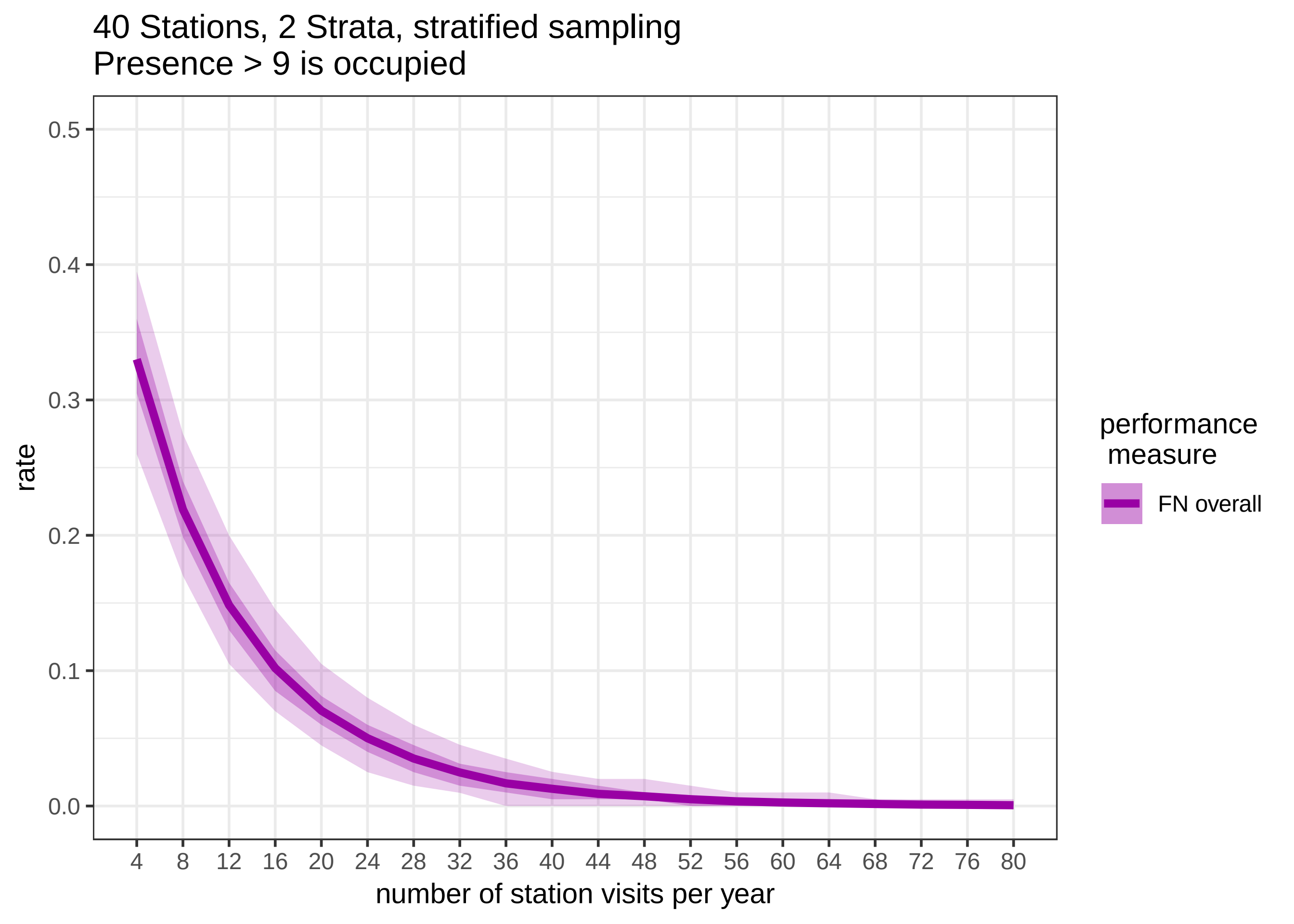

40 Stations, 2 Strata, stratified sampling
Presence > 5 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FN overall



40 Stations, 2 Strata, stratified sampling
Presence > 6 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FN overall


40 Stations, 2 Strata, stratified sampling
Presence > 7 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
number of station visits per year
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
performance measure
FN overall


40 Stations, 2 Strata, stratified sampling
Presence > 8 is occupied
rate
0.5
0.4
0.3
0.2
0.1
0.0
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance measure
FN overall



40 Stations, 2 Strata, stratified sampling
Presence > 9 is occupied
rate
0.0
0.1
0.2
0.3
0.4
0.5
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
number of station visits per year
performance
measure
FN overall