Discussions about
Carry-over and the completion rate of

HSC Queue-mode

led by TAC

Current HSC Queue Allocation and Execution

Grade of Proposal

- Normal-queue programs will be classified into Grade A and B
- Intensive-queue programs are classified as Grade A
- UH time and most of Time-exchange programs are classified as Grade A
- Grade A (excl. UH and Time-exchange) will be carry over to the next semester

Hours per Night (from S21A)

- Nights are allocated to the queue programs by conversion factor of 10hr/night (until S20B: 7hr/nights)
- The hours include overhead such as readout of CCDs, telescope slewing, and filter-exchange (until S20B: hours include on-source only)
- No weather factor is taken into account

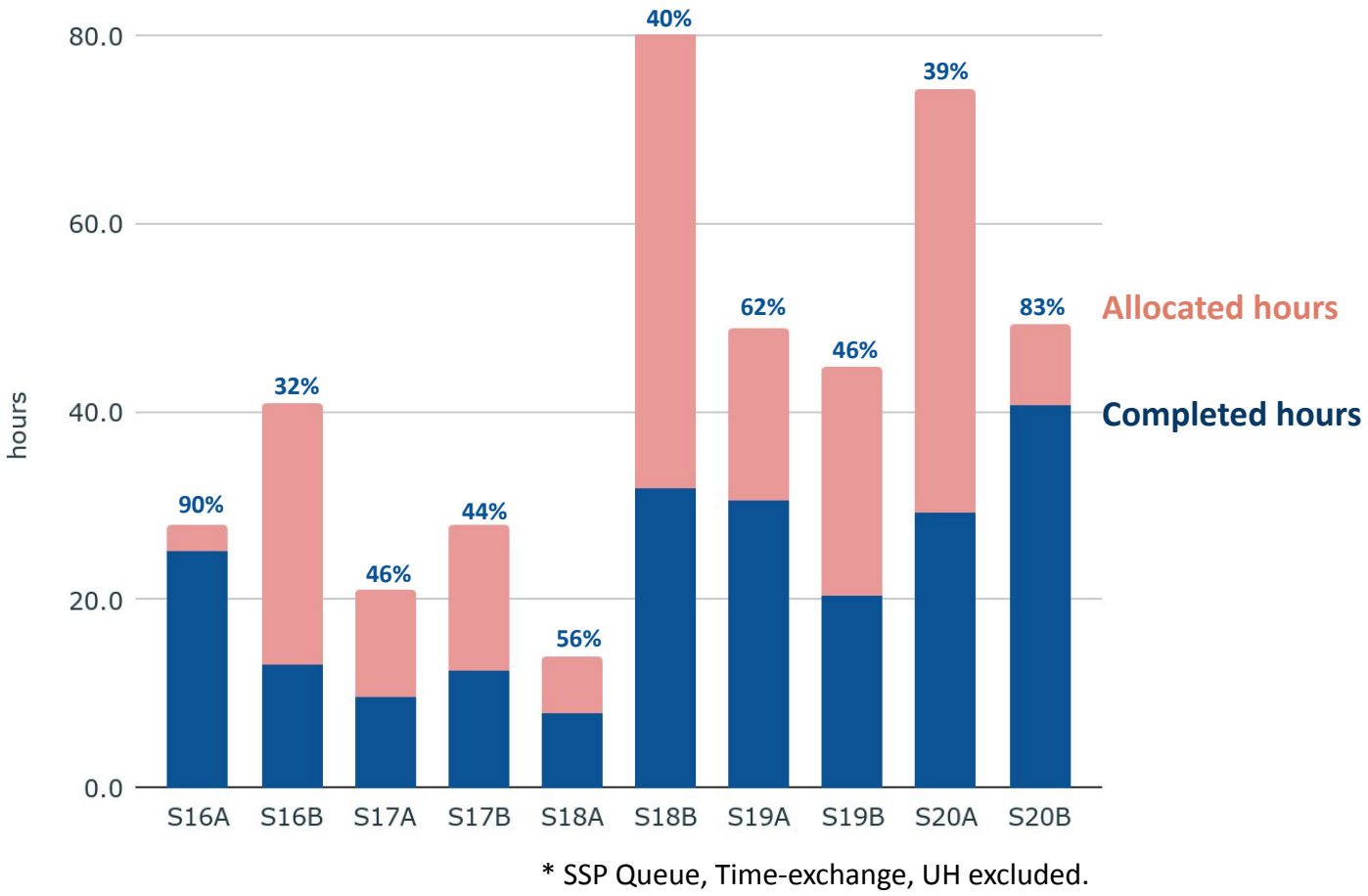
Items:

1) **Completion rate of HSC Queue-mode programs**

2) **Carry-over of HSC Queue-mode Intensive Program**

3) **Other issues**

1) Overall Completion Rate of Open-use programs by semester

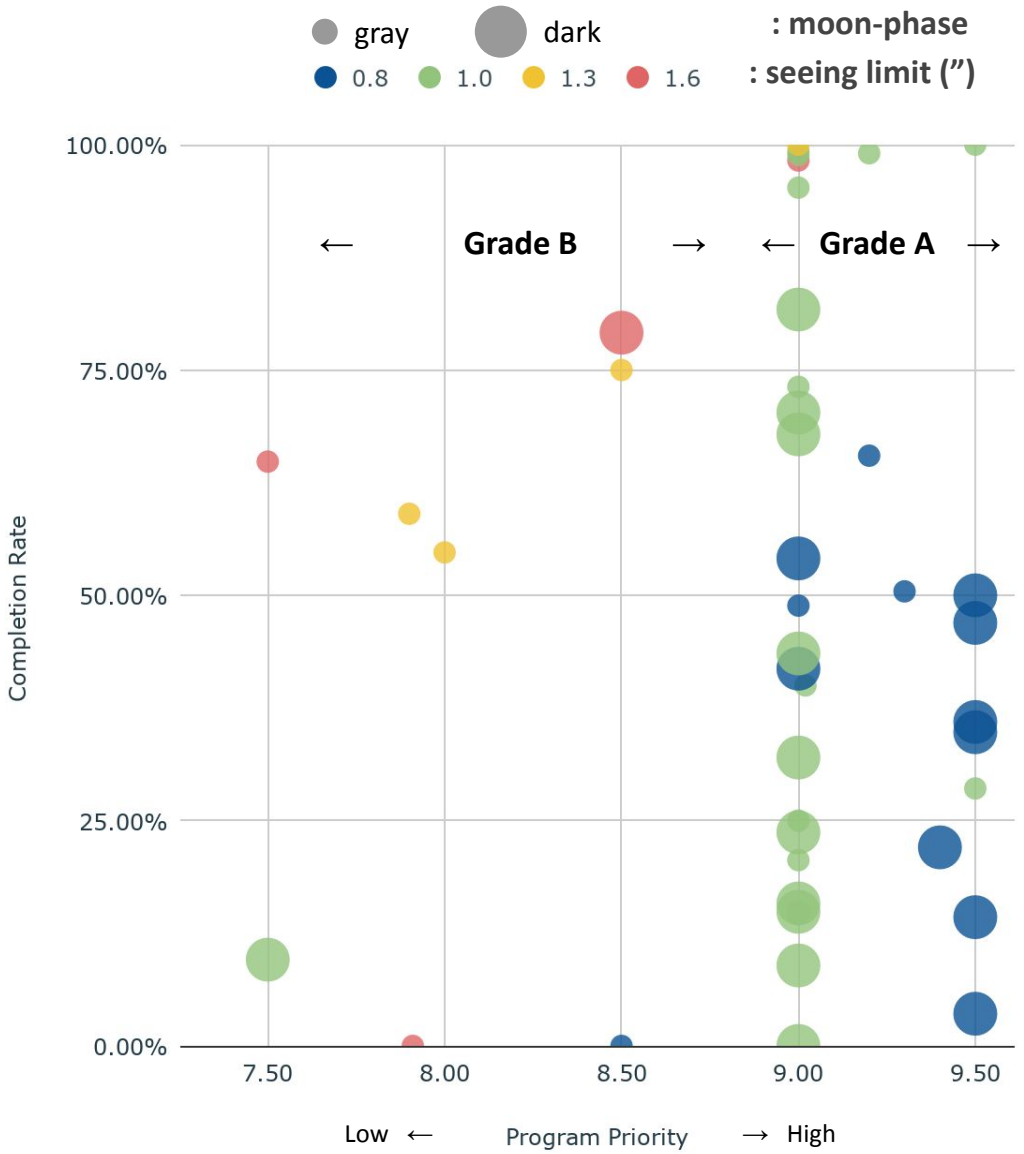


* SSP Queue, Time-exchange, UH excluded.

Completion rate = (total exposure time of completed OBs) / (allocated time)

Completed OBs = observing blocks which passed the Quality Assessment

1) Completion Rate and Program properties (S19A-S20B)



Completion rate of each program is related to:

- Program Grade
- Target visibility
- NBs use?
- **seeing**, transparency, **moon-phase** limit
- amount of allocated time
- conflict with other programs

Good seeing is demanded, especially by higher-ranked programs, though there are few chances to schedule, execute and complete such OBs.

Under the current operation policy, only programs having looser restriction may get high completion rate.

* Open-use (Grade A & B), Time-exchange, UH included

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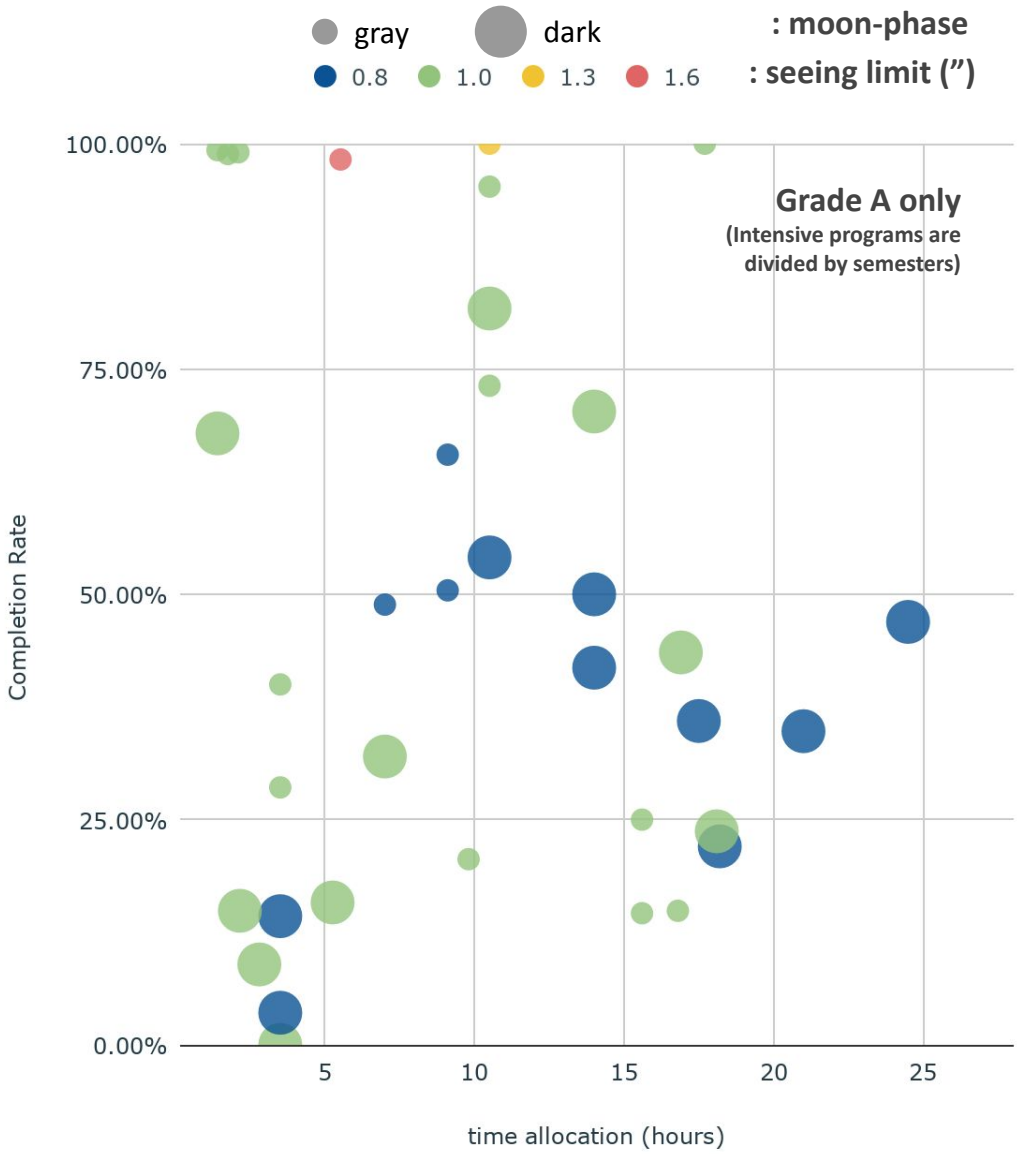

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2) Carry-over of HSC Queue-mode Intensive Program:

Currently, there are two options for the HSC Queue-mode Intensive program to claim the compensation of the low completion rate at the final semester.

- As an Intensive program:

  PI can submit a normal proposal of the same science at the last semester

  "if the overall completion rate is expected to be significantly low, we allow submission of an equivalent normal program proposal (of the same science goal) by the same PI at the last semester of the running intensive program" (Subaru CfP webpage)

  [pros] new evaluation by referees

  [cons] cover only one semester, difficult to estimate the required amount of time at the CfP

- As a HSC Queue-mode Grade-A program:

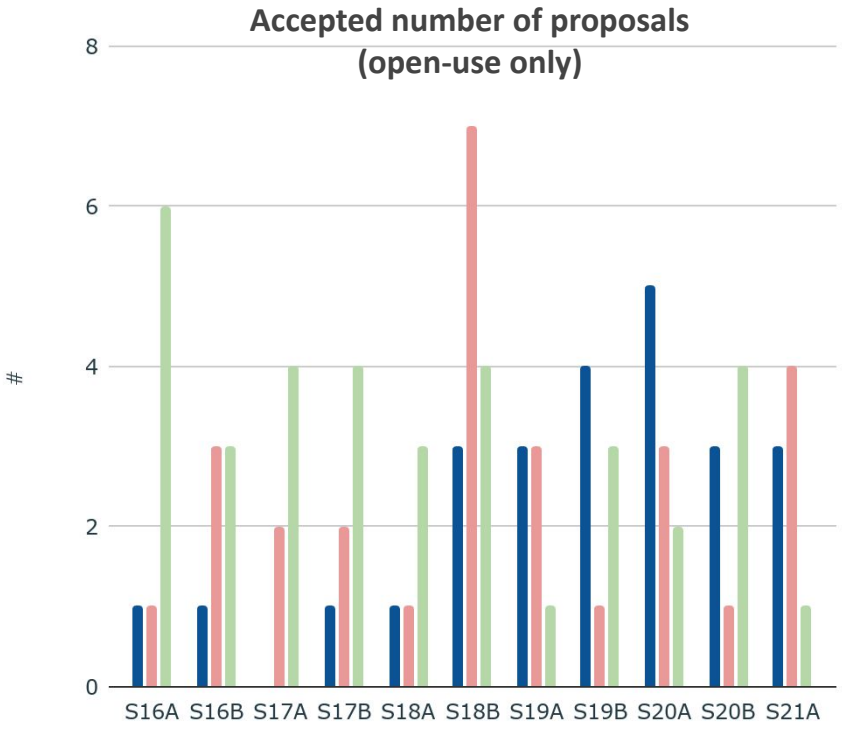
  The program can be carried-over up to 2 following semesters.

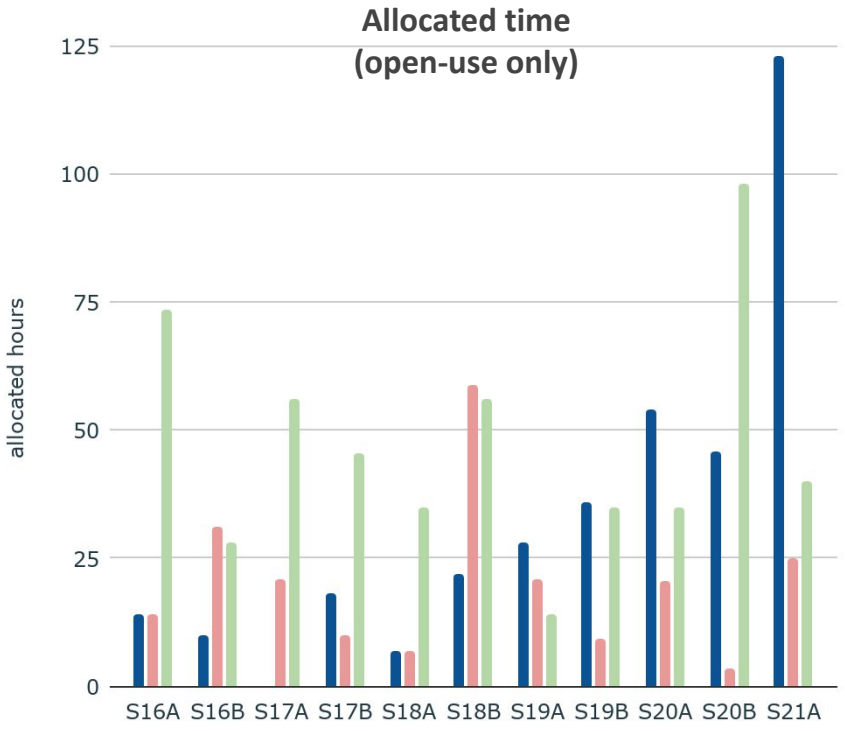
  "After the end of all allocated semesters, hours not executed will be carried over up to two following semesters. (...) The amount of carried-over hours will be decided by the TAC, and may have an upper limit depending on the available open-use nights. " (HSC Queue-mode Program PI document)

  [pros] cover both semesters, meet the required amount of time, don't need the proposal preparation

  [cons] no referee's evaluation at the present time

3) Other issues: unbalanced Grade

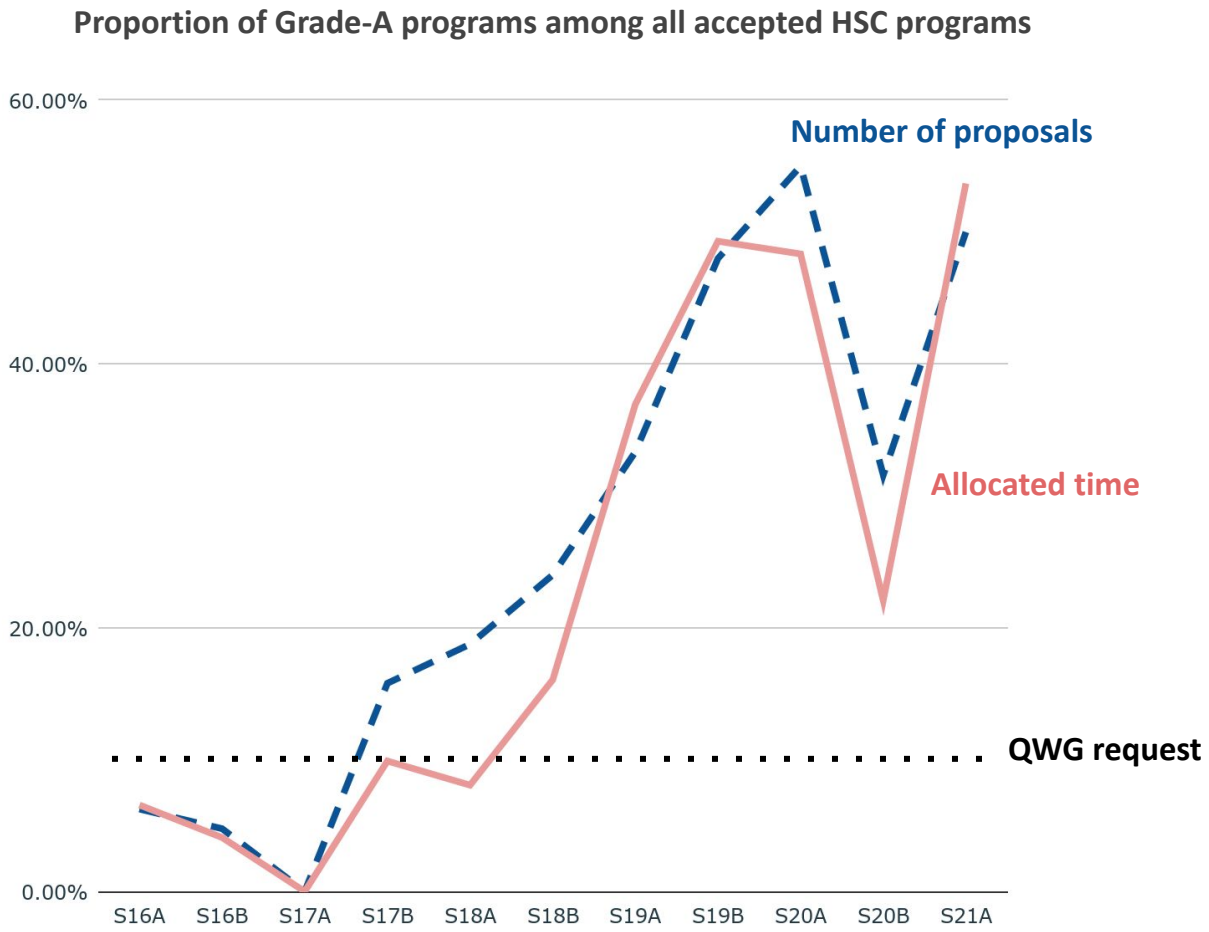




: Classical : Queue Grade-A (incl. Intensive) : Queue Grade-B

* excl. Time-Exchange, UH
* including overheads from S21A

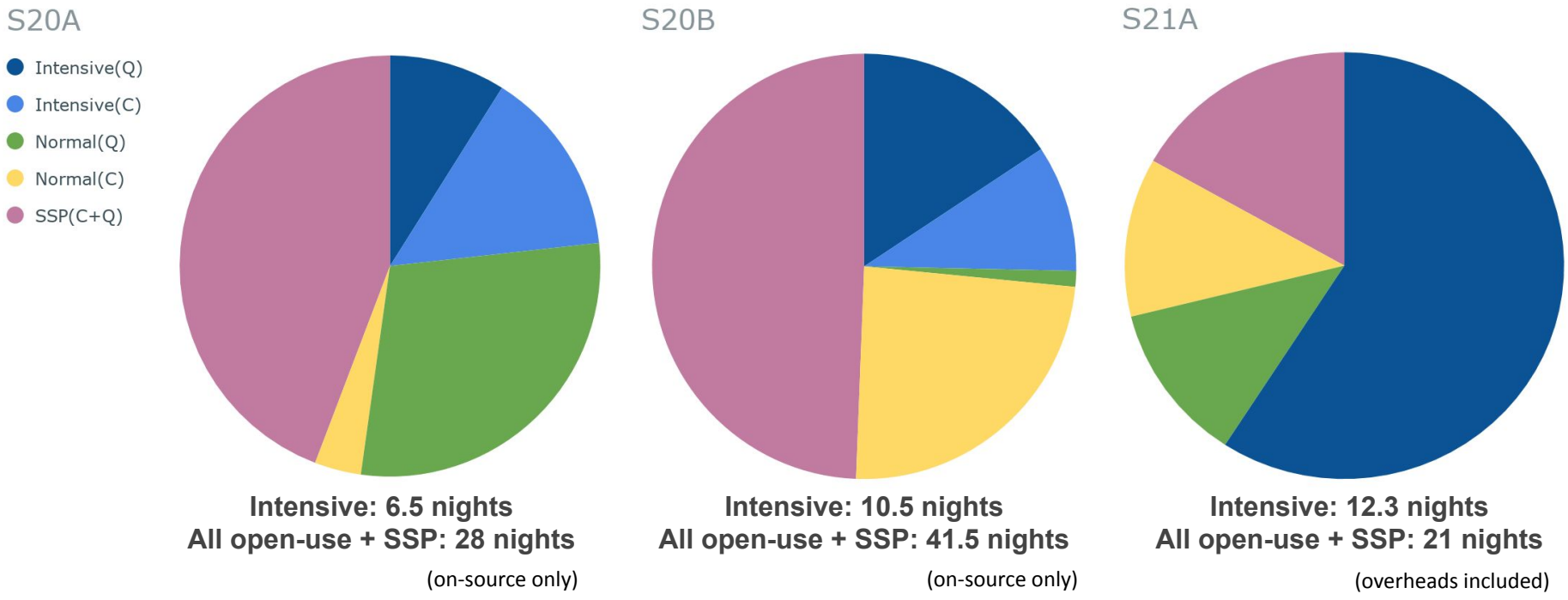
3) Other issues: unbalanced Grade



All accepted HSC programs = Queue (open-use, Time-exchange, UH) + Classical (open-use, Time exchange, UH)
Grade-A programs = Queue Grade-A (open-use, Time-exchange, UH)

3) Other issues: large programs

Intensive programs account for the large proportion of HSC (Queue+Classical) open-use time. It continues at least until S23A (A: 10.5 nights, B:5 nights).



Intensive: 6.5 nights
All open-use + SSP: 28 nights
(on-source only)

Intensive: 10.5 nights
All open-use + SSP: 41.5 nights
(on-source only)

Intensive: 12.3 nights
All open-use + SSP: 21 nights
(overheads included)

* 7h = 1 night for S20A and S20B, 10h = 1 night for S21A

Discussion Items

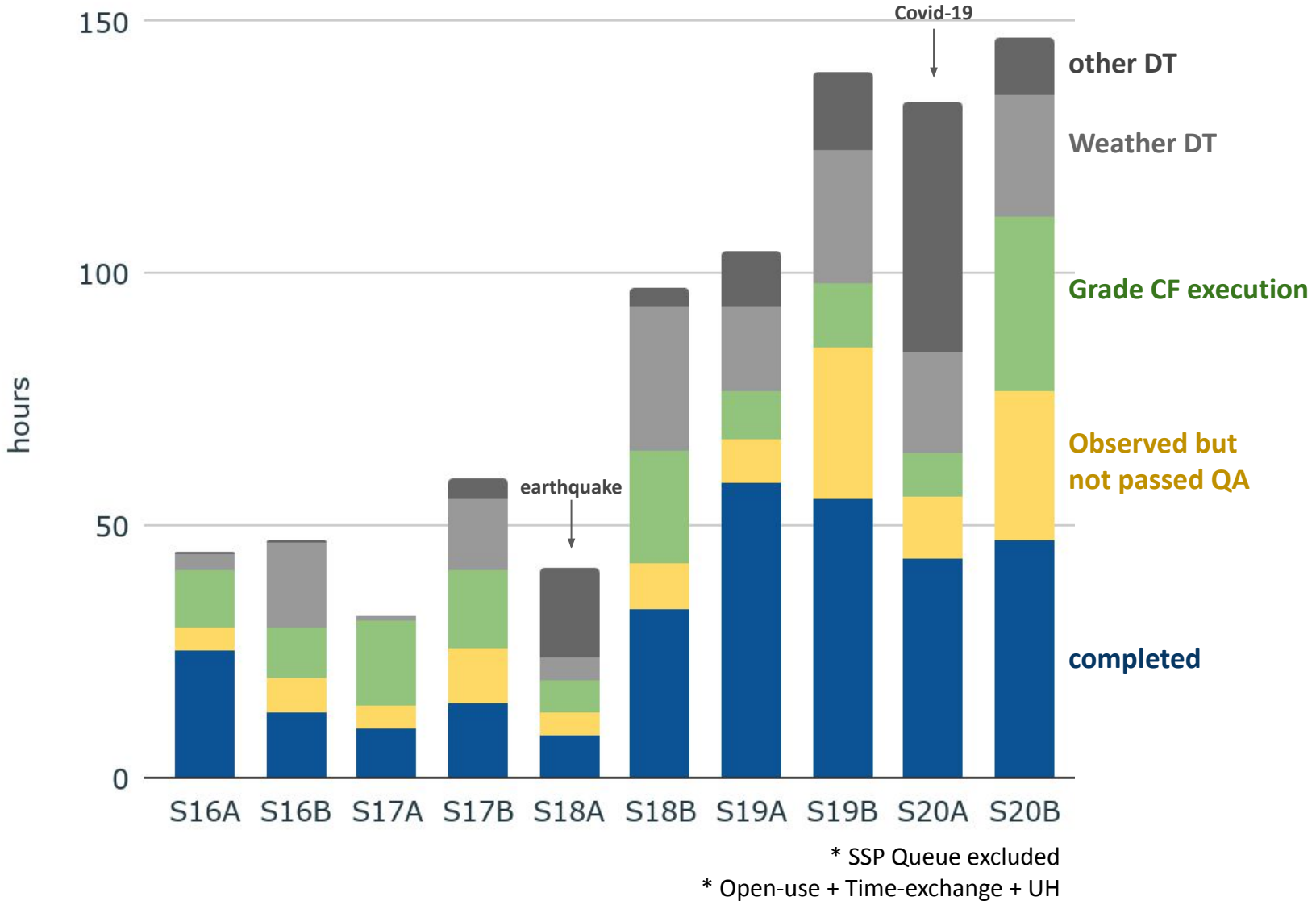
- How to deal with the low completion rate, esp. Grade-A
  - Mainly caused by too-many Grade-A proposal
  - Put a strict cap on the Grade-A fraction
    => In that case, multiple HSC queue intensive program may become difficult
  - Change conversion rate to incorporate weather fraction? (e.g. 10hr/night => 8hr/night ?)
- Carry-over or new proposal for HSC Queue Intensives?
  - Should we allow a PI to submit a same proposal in the last semester, although the PI has a right for carry over?

Feedback Requested!

TAC would like to hear your opinion about these issues.
Please contact nearby TAC members, or email to
TAC chair (Motohara-san) or Okamoto.

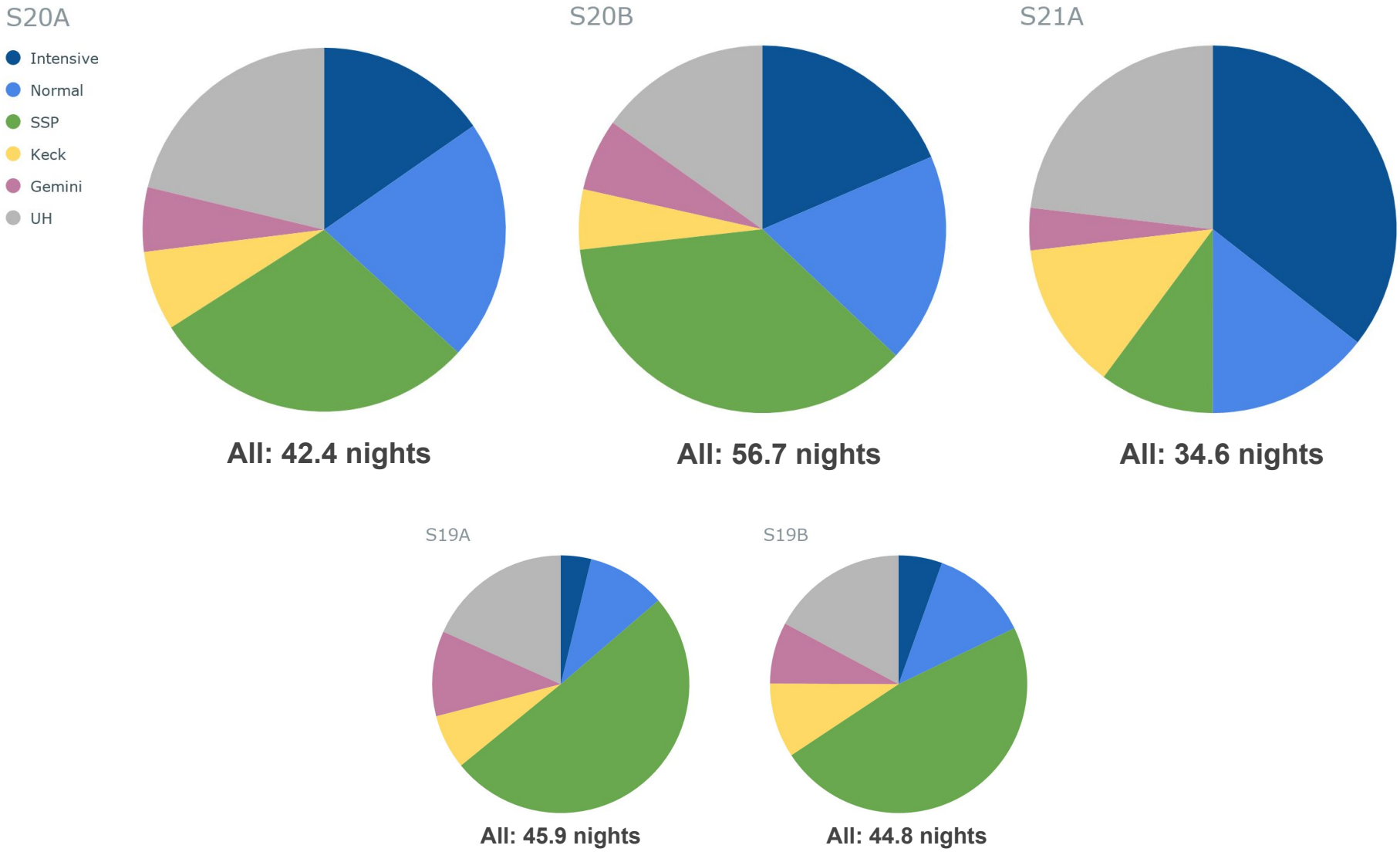
- How to deal with the low completion rate of programs with the high degree of difficulty?
- Carry-over or new proposal for Queue Intensives?
- Unbalanced Grade system
- Large programs

[Backup] Breakdown of Queue-mode observation time



* SSP Queue excluded
* Open-use + Time-exchange + UH

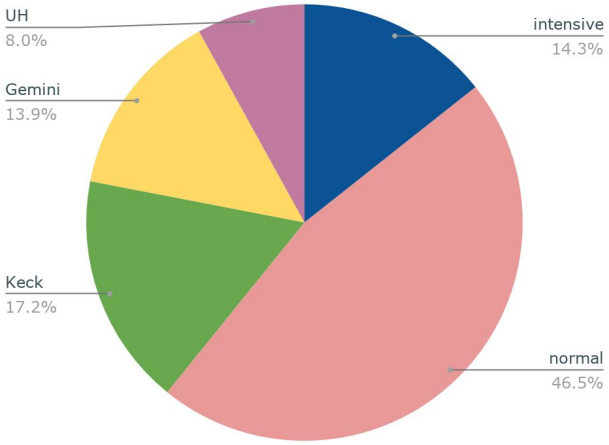
[Backup] Break down of HSC (Queue+Classical) time allocation



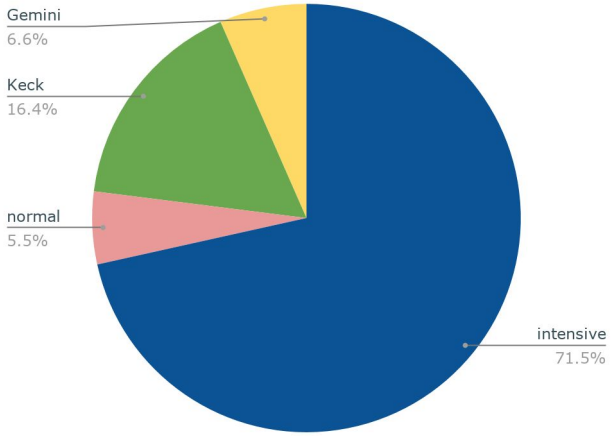
HSC Queue-mode Status of S20A and S20B

program	S20A completion rate	S20B completion rate
Open-Use	39.4%	81.8%
Time-Exchange Keck	40.1%	32.6%
Time-Exchange Gemini	21.6%	72.6%
UH	20.6%	n/a
overall	35.6%	73.2%

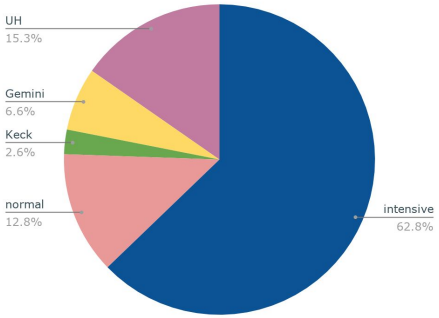
* completion rate = (total exposure time of completed Observing Blocks) / (allocated time)
* intensive programs are divided by semesters



S20A allocation : 122h
(on-source only)



S20B allocation : 66.7h
(on-source only)



S21A allocation : 199h
(overheads included)