Multi-Resource Real-Time Reader/Writer Locks for Multiprocessors

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***Abstract*—A *fine-grained* locking protocol permits multiple locks to be held simultaneously by the same task. In the case of real-time multiprocessor systems, prior work on such protocols has considered only mutex constraints. This unacceptably limits concurrency in systems in which some resource accesses are read-only. To remedy this situation, a variant of a recently proposed fine-grained protocol called the *real-time nested locking protocol* (*RNLP*) is presented that enables concurrent reads. This variant is shown to have worst-case blocking no worse (and often better) than existing coarse-grained real-time reader/writer locking protocols, while allowing for additional parallelism. Experimental evaluations of the proposed protocol are presented that consider both schedulability (*i.e.*, the ability to validate timing constraints) and implementation-related overheads. These evaluations demonstrate that the RNLP (both the mutex and the proposed reader/writer variant) provides improved schedulability over existing coarse-grained locking protocols, and is practically implementable.**

I. Introduction

Real-time and safety-critical systems are becoming increasingly complex, demanding the use of multicore platforms to improve performance and decrease size, weight, and power (SWaP) consumption. Examples of such systems include next-generation unmanned aerial vehicles (UAVs), and autonomous vehicles. To leverage multicore platforms in such systems, multiprocessor scheduling and synchronization algorithms are required that enable real-time timing constraints to be provably satisfied. A large body of prior work has produced several viable scheduling algorithms. However, to fully harness the computational power of multicore platforms, new multiprocessor real-time synchronizations techniques are necessary to exploit the parallelism afforded by multicore chips.

While numerous synchronization algorithms have been proposed and developed for general-purpose computing environments, such algorithms are often not suitable for real-time systems. This is because in a real-time system the *worst-case* timing behavior of a synchronization algorithm must be analyzable to ensure that no deadlines will be missed on account of synchronization. Therefore, real-time synchronization algorithms are often designed to reduce the worst case, instead of improving the average case. Lock-based synchronization algorithms are particularly well suited to multiprocessor real-time systems, as their worst-case performance is often better and easier to analyze without excessive pessimism than non-blocking counterparts.

When locks are used to support resource sharing, two principal approaches exist: coarse-grained and fine-grained locking. Under *coarse-grained locking*, resources that may be accessed concurrently via operations that conflict are grouped into a single lockable entity, and a single-resource locking protocol is used. This approach, also called *group locking* [1], clearly limits concurrency. In contrast, under *fine-grained locking*, different resources are locked individually. This enables concurrent accesses of separate resources, but issues such as deadlock become problematic.

Perhaps because of such issues, the first fine-grained locking protocol for multiprocessor real-time systems was proposed only recently, in the form of the *real-time nested locking protocol* (*RNLP*) of Ward and Anderson [10]. The RNLP is actually a "pluggable" protocol that has different variants for different real-time schedulers and analysis assumptions. Most of these variants are asymptotically optimal with respect to worst-case priority-inversion blocking, or *pi-blocking* (see Sec. II). Unfortunately, from the perspective of enabling concurrency, the RNLP has a serious shortcoming: it treats all resources as mutex resources that can be accessed by only one task at a time. This unacceptably limits concurrency if some accesses are read-only.

Contributions. To address this shortcoming, we present a reader/writer variant of the RNLP (the R/W RNLP for short) that allows read-only accesses to execute concurrently. The design of the R/W RNLP breaks new ground in several ways. For example, it is the first fine-grained multiprocessor real-time locking protocol that allows tasks to hold read locks and write locks simultaneously on different resources, and the first to allow read locks to be upgraded to write locks. As in previous work [3, 4, 5, 10], we judge the efficacy of a real-time locking protocol in terms of worst-case pi-blocking. We show that the R/W RNLP has worst-case pi-blocking no worse than previous coarse-grained reader/writer locking protocols [5]. To make the R/W RNLP easier to understand, we focus on a variant in which tasks block by *spinning* (busy waiting), though we note similar ideas can be used to construct a suspension-based lock.

Real-time vs. general-purpose performance evaluation. Unlike locks in general-purpose computing environments, where locks are evaluated based on metrics such as throughput or operations per unit time, real-time locks are evaluated on the basis of real-time *schedulability*, *i.e.*, the ability to validate timing correctness. Therefore, to demonstrate the performance gains provided by the R/W RNLP, we evaluated the schedulability of tens of thousands of randomly generated task systems using either the R/W RNLP or other alternatives. This study suggests that the improved parallelism afforded by fine-grained locking via the RNLP or R/W RNLP can be reflected in analysis to improve

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schedulability. We also implemented a spin-based variant of the R/W RNLP and measured its lock and unlock overheads, which we found to be quite small. These results suggest that the R/W RNLP has practical merit.

Algorithmic and analytical challenges. The R/W RNLP was obtained by employing the concept of reader and writer "phases," as used in *phase-fair reader/writer* (*R/W*) *locks* [3, 5, 6], within the context of the RNLP [10], which provides only mutex sharing. The RNLP orders conflicting resource requests on a FIFO basis, *i.e.*, earlier requests are satisfied first. Thus, when abstractly considering behavior under the RNLP as a dynamically changing wait-for graph, an important *stability* property emerges: once a resource request is issued, its outgoing edge set, *i.e.*, the set of requests upon which it is waiting, does not change.

Phase-fair locks expressly violate this stability property. In order to enable $O(1)$ worst-case pi-blocking for read requests, phase-fair locks allow later-requested reads to "cut ahead" of earlier-requested writes. This is accomplished by alternating read and write phases; in a read (write) phase, the managed resource is accessed by *all* (*one*) issued read requests (write request). (Note that this is with respect to a *single* resource: prior work on phase-fair locks has not addressed the fine-grained sharing of multiple resources.) Because reads can "cut ahead" of writes, the outgoing edge set of write requests in the wait-for graph is not stable—in fact, it is not stable for any R/W locking protocol with $O(1)$ worst-case reader pi-blocking.

Dealing with this lack of stability was one of the main challenges we faced in designing the R/W RNLP since we desired $O(1)$ reader pi-blocking. One issue that arises on account of instability is what we call the *R/W ordering dilemma*. Consider a read request $\mathcal{R}_1^r$ that is waiting to access two resources, ℓ_a, which is read locked by request $\mathcal{R}_2^r$, and ℓ_b, which is write locked by request $\mathcal{R}_3^w$, as in Fig. 1 (*n.b.*, notation will be defined more rigorously in Sec. II). Subsequently, a write request $\mathcal{R}_4^w$ is issued for the read-locked resource ℓ_a. Which request should be satisfied first, the waiting read $\mathcal{R}_1^r$ or the waiting write $\mathcal{R}_4^w$ (*i.e.*, where should $\mathcal{R}_4^w$ be inserted into the wait-for graph)? Phase-fair logic suggests that $\mathcal{R}_4^w$ be satisfied first (left side of Fig. 1), as the resource for which it is currently waiting is read locked (*i.e.*, in a read phase, so a write phase should be next). However, this is problematic because it increases the blocking bound of the read request $\mathcal{R}_1^r$, which is already blocked by another writer ($\mathcal{R}_3^w$). Alternatively, if the read $\mathcal{R}_1^r$ is satisfied next (right side of Fig. 1), then the write request $\mathcal{R}_4^w$ may be blocked by two read requests, leading to longer pi-blocking bounds than under a phase-fair lock.

Because we desire $O(1)$ pi-blocking for read requests, we have no choice but to sometimes let read requests "cut ahead" of write requests when resolving the R/W ordering dilemma, as in phase-fair locks. As noted above, this "cutting ahead" inserts edges into the wait-for graph that are not in accordance with FIFO request ordering. This has an effect that is not just localized but system-wide: in the wait-for graph, entire *paths*, representing *transitive* blocking relationships, may be inconsistent with FIFO ordering. The resulting ***transitive*** *early-on-late pi-blocking* can be difficult to properly handle and analyze.

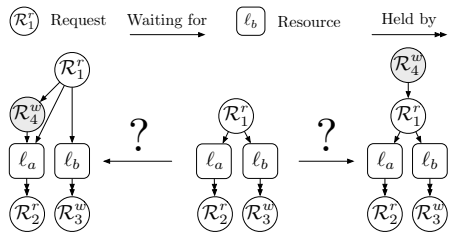


Figure 1: Illustration of the R/W ordering dilemma. The left and right side of the figure depict alternative places to insert a new write request $\mathcal{R}_4^w$ into the wait-for graph depicted in the middle.

Organization. After some preliminaries (Sec. II), we show how the above challenges can be addressed by presenting and analyzing the R/W RNLP (Sec. III). We then present our experimental evaluation and conclude (Secs. IV-V).

II. Background

We consider the commonly studied sporadic real-time task model [8], in which the system is composed of m processors and n sporadic tasks $T_1, \ldots, T_n$. Each task T_i releases a sequence of jobs. We denote an arbitrary job of T_i as J_i. Jobs of T_i are released with a *minimum separation* of p_i time units. Each such job executes for an *execution requirement* of at most e_i time units and should complete before a specified *relative deadline* d_i time units after its release. We consider time to be continuous. A job is said to be *pending* after being released until it completes execution.

Resource model. We consider a system with q shared resources (excluding processors), $\ell_1, \ldots, \ell_q$, such as shared memory objects. When a job requires access to one or more resources, it issues a *request* to a *locking protocol*. (Note that multiple resources may be included in one request.) For notational simplicity, we assume that J_i issues at most one request, which we denote $\mathcal{R}_i$. A request is said to be *satisfied* when access is granted to all requested resources and *completed* when the job *releases* all requested resources. A satisfied request is said to *hold* its requested resources. The time between a request being issued and being satisfied is *acquisition delay*. The time between the satisfaction of a request and its completion is a *critical section*.

Real-time locking protocols must be coupled with a *progress mechanism* that ensures that lock-holding jobs "make progress." We require that such a mechanism satisfy the following two properties:

P1 A resource-holding job is always scheduled.

P2 At most m jobs may have incomplete resource requests at any time, at most c from each cluster.

Progress mechanisms for suspension-based locks (*e.g.*, priority donation [4]) can be applied in the R/W RNLP, but such mechanisms are too complicated to describe in the space allowed. Therefore, for simplicity, we assume that jobs

with incomplete resource requests execute non-preemptively (both while waiting via spinning and within their critical sections), which trivially satisfies these two properties.

Each resource indicated in a request is requested for either *reading* or *writing*. We say that a resource is *read* (*write*) *locked* if it is held by a request that reads (writes) it. We assume that each resource ℓ_a is subject to a *reader/writer sharing constraint*: writes of ℓ_a are mutually exclusive, but arbitrarily many reads of ℓ_a can be executed concurrently. Such a read is not allowed to modify ℓ_a. Two requests *conflict* if they include a common resource that is written by at least one of them.

Scheduling. We consider *clustered*-scheduled systems, in which the m processors are grouped into m/c clusters, each of size c. Tasks are statically assigned to clusters, and within each cluster, jobs are scheduled from a single ready queue. A task can migrate among the processors within its cluster. *Partitioned* and *global* scheduling are special cases of clustered scheduling, in which $c = 1$ and $c = m$, respectively. Additionally, we assume a job-level fixed priority scheduling algorithm, in which each job has a constant priority, but different jobs of the same task may have differing priorities.

Blocking. We evaluate the blocking of the presented locking protocols on the basis of their worst-case *priority-inversion blocking* (*pi-blocking*) [6].

Def. 1. A job J_i incurs *pi-blocking* at time t if J_i is ready but not scheduled and fewer than c higher-priority jobs are ready in T_i's cluster.

For example, if a high-priority job J_h is released, but a low-priority job executing non-preemptively is preventing J_h from being scheduled, then J_h is pi-blocked. A job may also be blocked while waiting for a resource:

Def. 2. A job J_i incurs *s-blocking* at time t if J_i is spinning (and thus scheduled) waiting for a resource.

For example, if J_i is spinning while waiting for ℓ_a, which is held by J_k, then J_i is s-blocked.

Analysis assumptions. Similarly to [3, 6, 10], for asymptotic analysis, we assume that m and n (the number of processors and tasks, respectively) are variables, and all other parameters are constants. Examples of such constants include critical section lengths. Additionally, we assume that locking-protocol invocations take zero time and all other overheads are negligible (such overheads can be easily factored into the final analysis [3, Chaps. 3,7]).

III. R/W RNLP

The goal of this paper is to extend the original mutex RNLP [10] to enable fine-grained reader/writer (R/W) sharing and, to the extent possible, enable non-conflicting requests to be satisfied concurrently. We also desire the following additional properties.

- **R/W mixing**. Some resources may be read and others written in one critical section. Such critical sections can be satisfied concurrently if they do not conflict.

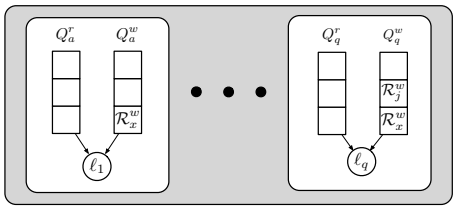


Figure 2: Queue structure in the R/W RNLP. For each resource $\ell_a \in \{\ell_1, \ldots, \ell_q\}$, there is a read queue Q_a^r and a write queue Q_a^w.

- **R-to-W upgrading.** A job that has acquired a resource for reading may *upgrade* its read to a write. For example, a job may read a resource, and based upon the value read, decide that it needs to write that resource.
- **Incremental locking.** The resources accessed by a job within a single critical section may be requested via a sequence of requests. For example, a job may request ℓ_a, read its value, and then execute some conditional code that requests ℓ_b.

We call the protocol we obtain the *R/W RNLP*. In describing the R/W RNLP, we initially make the following simplifying assumption.

Assumption 1. *All resources accessed within a single critical section are requested via a single request, these resources are either all read or all written, and no read request may be upgraded.*

We relax Assumption 1 later in this section and support the aforementioned three features. Until then (*i.e.*, while Assumption 1 is still in place), we use the following notation. We denote the set of resources that are needed in $\mathcal{R}_i$'s critical section as $\mathcal{N}_i$. By Assumption 1, each request can be categorized as either a *read request* or a *write request*, and each critical section as either a *read critical section* or a *write critical section*. For notational clarity, we often annotate read (write) requests as $\mathcal{R}_i^r$ ($\mathcal{R}_i^w$). We denote the longest read (write) critical section length as L_{max}^r (L_{max}^w), and we let $L_{max} = \max(L_{max}^r, L_{max}^w)$.

A. R/W RNLP

In the R/W RNLP, two queues are used per resource ℓ_a, a queue for readers, Q_a^r, and a queue for writers, Q_a^w, as depicted in Fig. 2. We assume that each read (write) request is enqueued atomically in the read (write) queue of each resource it requests. The timestamp of the issuance of each request $\mathcal{R}_i$ is recorded and denoted $ts(\mathcal{R}_i)$. All writer queues are order by these timestamps, resulting in FIFO queueing. We denote the earliest timestamped incomplete write request for ℓ_a (*i.e.*, the head of Q_a^w) as $E(Q_a^w)$. Similar to phase-fair locks [5], the queue from which requests are satisfied (Q_a^r or Q_a^w) alternates. The techniques that govern such alternation, however, are quite different from traditional phase-fair locks due to the R/W ordering dilemma.

Example. As we explain the rules of the R/W RNLP, we will reference relevant parts of the example schedule in Fig. 3, which will later be explained in its entirety. In

this running example, there are five tasks and a processor for each task, such that all pending jobs are scheduled. Additionally, these tasks share three resources, ℓ_a, ℓ_b, and ℓ_c. At time $t = 2$, when $\mathcal{R}_2^w$ is issued, $ts(\mathcal{R}_2^w) = 2$ is established. Also, since $\mathcal{R}_2^w$ requires all three resources and since it is the only write request waiting for any resource, $E(Q_a^w) = E(Q_b^w) = E(Q_c^w) = \mathcal{R}_2^w$.

Before describing the techniques that govern when requests should be satisfied, we define relevant notation. We say that two resources ℓ_a and ℓ_b are *read shared*, denoted $\ell_a \sim \ell_b$,[1] if both ℓ_a and ℓ_b could be requested together as part of a single read request (*i.e.*, for some $\mathcal{R}_i^r$, $\{\ell_a, \ell_b\} \subseteq \mathcal{N}_i$). We call the set of all resources that are read shared with ℓ_a the *read set* of ℓ_a, denoted $S(\ell_a) = \{\ell_b |\ \ell_b \sim \ell_a\}$.

Example (cont'd) In Fig. 3, for $\mathcal{R}_5^r$, $\mathcal{N}_5 = \{\ell_a, \ell_b\}$. Thus, $\ell_a \sim \ell_b$ (and $\ell_b \sim \ell_a$). Since $\mathcal{R}_5^r$ is the only request for multiple resources, $S(\ell_a) = \{\ell_a, \ell_b\}$ and $S(\ell_c) = \{\ell_c\}$.

To avoid transitive early-on-late blocking, a write request may be forced to request additional resources besides those needed in its critical section. To reflect this, we let $\mathcal{D}_i$ denote the set of resources that $\mathcal{R}_i$ must actually request. For a read request $\mathcal{R}_i^r$, $\mathcal{D}_i$ is simply $\mathcal{N}_i$. However, for a write request $\mathcal{R}_i^w$, $\mathcal{D}_i = \bigcup_{\ell_a \in \mathcal{N}_i} S(\ell_a)$. While forcing write requests to acquire more resources than actually needed reduces runtime concurrency, it does not negatively affect worst-case pi-blocking. As we shall see, this expansion rule enables us to avoid transitive early-on-late blocking. Additionally, we shall show later that this expansion of write requests can be relaxed to enable additional concurrency on average.

Example (cont'd). Suppose $\mathcal{R}_2^w$ in Fig. 3 only needs $\mathcal{N}_2 = \{\ell_a, \ell_c\}$ in its critical section. Because $\ell_a \sim \ell_b$ and $\ell_a \in \mathcal{N}_2$, $\mathcal{R}_2^w$ actually requests $\mathcal{D}_2 = \{\ell_a, \ell_b, \ell_c\}$.

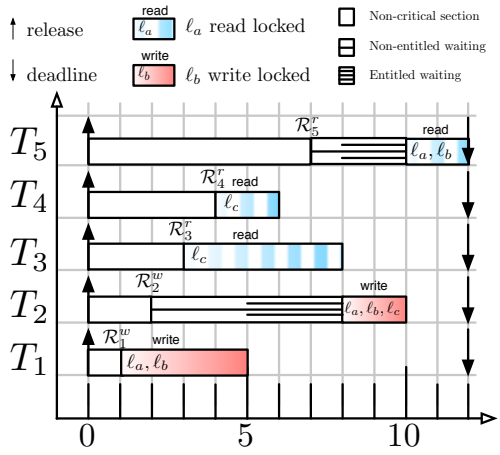
General rules. The first few rules of the R/W RNLP are common to both readers and writers and describe the necessary actions that must be taken when a job either issues a request or completes a critical section.

- **G1** When J_i issues $\mathcal{R}_i$ at time t, the timestamp of the request is recorded: $ts(\mathcal{R}_i) := t$.
- **G2** When $\mathcal{R}_i$ is satisfied, it is dequeued from either Q_a^r (if it is a read request) or Q_a^w (if it is a write request) for each $\ell_a \in \mathcal{D}_i$.
- **G3** When $\mathcal{R}_i$ completes, it unlocks all resources in $\mathcal{D}_i$.
- **G4** Each request issuance or completion occurs atomically. Therefore, there is a total order on timestamps, and a request cannot be issued at the same time that a critical section completes.

Example (cont'd). At time $t = 8$, when $\mathcal{R}_3^r$ completes its critical section, $\mathcal{D}_3 = \{\ell_c\}$ is unlocked. This allows $\mathcal{R}_2^w$ to be satisfied (as explained later), and therefore $\mathcal{R}_2^w$ is dequeued from Q_a^w, Q_b^w, and Q_c^w.

The remaining read- and write-specific rules rely on the concept of *entitlement*, which we use to resolve the R/W ordering dilemma. Intuitively, a request becomes *entitled* once it is the next request to be satisfied (w.r.t. the resources

[1]Read sharing is reflexive and symmetric.



(a) Schedule in the running example.

time	queue states					
	Q_a^r	Q_a^w	Q_b^r	Q_b^w	Q_c^r	Q_c^w
$[0, 2)$	$\emptyset$	$\emptyset$	$\emptyset$	$\emptyset$	$\emptyset$	$\emptyset$
$[2, 7)$	$\emptyset$	$\{\mathcal{R}_2^w\}$	$\emptyset$	$\{\mathcal{R}_2^w\}$	$\emptyset$	$\{\mathcal{R}_2^w\}$
$[7, 8)$	$\emptyset$	$\{\mathcal{R}_2^w\}$	$\{\mathcal{R}_5^r\}$	$\{\mathcal{R}_2^w\}$	$\emptyset$	$\{\mathcal{R}_2^w\}$
$[8, 10)$	$\emptyset$	$\emptyset$	$\{\mathcal{R}_5^r\}$	$\emptyset$	$\emptyset$	$\emptyset$
$[10, 12]$	$\emptyset$	$\emptyset$	$\emptyset$	$\emptyset$	$\emptyset$	$\emptyset$

(b) Queue states over time in the schedule in (a).

Figure 3: Illustration of the running example.

for which it is waiting), and remains entitled until it is satisfied. While a request is entitled, it blocks all conflicting requests. Entitlement is defined differently for read and write requests. We begin with read requests, which are entitled if they are blocked only by satisfied (and not entitled) writes.

Def. 3. An unsatisfied read request $\mathcal{R}_i^r$ becomes *entitled* when there exists $\ell_a \in \mathcal{D}_i$ that is write locked, and for each resource $\ell_a \in \mathcal{D}_i$, $E(Q_a^w)$ is not entitled (see Def. 4).[2] (Note that $E(Q_a^w) = \emptyset$ could hold. In this case, we consider $E(Q_a^w)$ to be a "null" request that is not entitled.) $\mathcal{R}_i^r$ remains entitled until it is satisfied.

Of course, if a newly issued read request does not conflict with satisfied or entitled incomplete requests, then it is satisfied immediately (see Rule R1 below) and Def. 3 does not apply (only unsatisfied requests can be entitled).

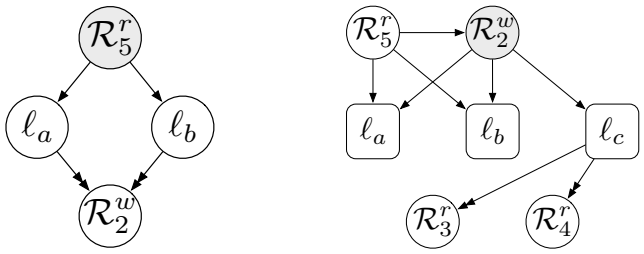
Example (cont'd). At time $t = 8$, $\mathcal{R}_5^r$ is blocked by $\mathcal{R}_2^w$, which holds ℓ_a, ℓ_b, and ℓ_c, as depicted in Fig. 4(a). By Def. 3, $\mathcal{R}_5^r$ becomes entitled at time $t = 8$ because ℓ_a and ℓ_b are write locked and $E(Q_a^w) = E(Q_b^w) = \emptyset$.

Next we consider the writer case. Intuitively, an entitled write is the head of all relevant write queues and not blocked by any entitled reads (but possibly satisfied reads).

Def. 4. An unsatisfied write request $\mathcal{R}_i^w$ becomes *entitled* when for each $\ell_a \in \mathcal{D}_i$, $\mathcal{R}_i^w = E(Q_a^w)$, no read request in Q_a^r is entitled (see Def. 3)[3], and ℓ_a is not write locked. $\mathcal{R}_i^w$

[2] Entitlement is a property of a request, and Defs. 3 and 4 give conditions upon which a request becomes entitled in terms of the entitlement of other requests. Therefore, while Defs. 3 and 4 reference each other parenthetically to aid the reader, they are not in fact circularly defined.

[3]Sse footnote 2.



(a) Reader entitlement. (b) Writer entitlement.

Figure 4: Illustrations of the wait-for graphs of entitled read and write requests. Inset (a) corresponds to $\mathcal{R}_5^r$ at time $t = 8$, and (b) corresponds to $\mathcal{R}_2^w$ at time $t = 7$ in Fig. 3. Note that in inset (b), $\mathcal{R}_5^r$ is blocked by at least one satisfied write request, and in (b) $\mathcal{R}_2^w$ is blocked by at least one satisfied write request.

remains entitled until it is satisfied.

Observe that an entitled write request $\mathcal{R}_i^w$ is only blocked by satisfied but incomplete read requests since according to Def. 4 no resource in $\mathcal{D}_i$ is write locked.

Example (cont'd). At time $t = 7$, $\mathcal{R}_3^r$ holds ℓ_c, and blocks $\mathcal{R}_2^w$, which is waiting for ℓ_a, ℓ_b, and ℓ_c, as depicted in Fig. 4(b). Because $\mathcal{R}_2^w$ is the earliest timestamped writer waiting for any of the resources, and none is write locked, $\mathcal{R}_2^w$ becomes entitled. Note that, although $\mathcal{R}_2^w$ is entitled, it is still blocked. Prior to $t = 5$, $\mathcal{R}_2^w$ was not be entitled because ℓ_a and ℓ_b were write locked by $\mathcal{R}_1^w$.

An entitled request (read or write) may be blocked by multiple requests, each holding different resources. We let $B(\mathcal{R}_i, t)$ be the set of satisfied requests that conflict with an entitled request $\mathcal{R}_i$ at time t (*i.e.*, the set of requests that block $\mathcal{R}_i$ at time t). Note that since read requests do not conflict with each other, $B(\mathcal{R}_i^r, t)$ only contains write requests. Analogously, an entitled write is only blocked by read requests, and thus $B(\mathcal{R}_i^w, t)$ only consists of read requests. This matches the phase-fair intuition that reads concede to writes, and writes concede to reads.

Example (cont'd). At time $t \in [6, 8)$, $\mathcal{R}_2^w$ is blocked by $\mathcal{R}_3^r$, thus $B(\mathcal{R}_2^w, t) = \{\mathcal{R}_3^r\}$. Earlier, at time $t \in [5, 6)$, $\mathcal{R}_2^w$ is blocked by both $\mathcal{R}_3^r$ and $\mathcal{R}_4^r$, so $B(\mathcal{R}_2^w, t) = \{\mathcal{R}_3^r, \mathcal{R}_4^r\}$.

Reader rules. We next define reader-specific rules, which utilize the previously given definition of entitlement. These rules define the behavior of the R/W RNLP, when a read request is issued and satisfied, respectively.

- **R1** When $\mathcal{R}_i^r$ is issued, for each $\ell_a \in \mathcal{D}_i$, $\mathcal{R}_i^r$ is enqueued in Q_a^r. If $\mathcal{R}_i^r$ does not conflict with any entitled or satisfied write requests, then it is satisfied immediately.
- **R2** An entitled read request $\mathcal{R}_i^r$ is satisfied at the first time instant t such that $B(\mathcal{R}_i^r, t) = \emptyset$.

Example (cont'd). At time $t = 3$, $\mathcal{R}_3^r$ is issued and it is satisfied immediately by Rule R1. $\mathcal{R}_3^r$ is allowed to "cut ahead" of $\mathcal{R}_2^w$ in this case because $\mathcal{R}_2^w$ is not entitled, and ℓ_c is unlocked. Further, at time $t = 10$, $\mathcal{R}_5^r$ is satisfied by Rule R2. This is because $\mathcal{R}_5^r$ is entitled, and $\mathcal{R}_2^w$ completed its critical section and unlocked ℓ_a and ℓ_b.

Writer rules. The writer rules parallel the reader rules.

- **W1** When $\mathcal{R}_i^w$ is issued, for each $\ell_a \in \mathcal{D}_i$, $\mathcal{R}_i^w$ is enqueued in timestamp order in the write queue Q_a^w. If $\mathcal{R}_i^w$ does not conflict with any entitled or satisfied requests (read or write), then it is satisfied immediately.
- **W2** An entitled write request $\mathcal{R}_i^w$ is satisfied at the first time instant t such that $B(\mathcal{R}_i^w, t) = \emptyset$.

Full example. At time $t = 1$, a write request $\mathcal{R}_1^w$ is issued for ℓ_a and ℓ_b, which is immediately satisfied (by Rule W1). At time $t = 2$, another write request, $\mathcal{R}_2^w$, is issued for ℓ_a, ℓ_b, and ℓ_c and is enqueued in Q_a^w, Q_b^w, and Q_c^w (by Rule W1). $\mathcal{R}_3^r$ is issued and satisfied immediately at time $t = 3$ by Rule R1, as previously described. Similarly, at time $t = 4$, $\mathcal{R}_4^r$ is issued and satisfied immediately (by Rule R1). Note that at time $t = 4$, both $\mathcal{R}_3^r$ and $\mathcal{R}_4^r$ have read locked ℓ_b, demonstrating reader parallelism. Further, at time $t = 4$, ℓ_a and ℓ_b are write locked while ℓ_c is read locked, a level of concurrency only possible with fine-grained locking. When $\mathcal{R}_1^w$ completes at time $t = 5$, $\mathcal{R}_2^w$ becomes entitled. At time $t = 7$, $\mathcal{R}_5$ is issued for ℓ_b and ℓ_c, but it is not satisfied because $\mathcal{R}_2^w$ is entitled to both resources. After $\mathcal{R}_3^r$ completes at time $t = 8$, $\mathcal{R}_2^w$ is satisfied (by Rule W2). Finally, after $\mathcal{R}_2^w$ completes at time $t = 10$, $\mathcal{R}_5^r$ is satisfied (by Rule R2).

This concludes the definition and introduction of the R/W RNLP. To summarize, the R/W RNLP implements phase-fairness, where reads concede to writes and writes concede to reads. To resolve the R/W ordering dilemma, we have introduced the concept of entitled blocking. Intuitively, an entitled request is "next in line" with regard to its requested resources and only blocked by satisfied, but incomplete requests of the opposite kind.

B. Analysis

We now present blocking analysis for the R/W RNLP. Our analysis uses the following two corollaries, which follow from Lemmas 4 and 5, respectively, proved in Appendix A.

Corollary 1. *Suppose that the request $\mathcal{R}_i^w$ becomes entitled at time t_e and satisfied at time t_s. Then, no new requests may be added to $B(\mathcal{R}_i^w, t)$ at any time time $t \in [t_e, t_s)$.*

Example (cont'd). This corollary is demonstrated at time $t = 7$ in Fig. 5, when $\mathcal{R}_5^r$ is issued. Because $\mathcal{R}_2^w$ is entitled at that time, $\mathcal{R}_5^r$ is forced to block until after $\mathcal{R}_2^w$ completes, even though the resources it requested are available.

Corollary 2. *Suppose that the request $\mathcal{R}_i^r$ becomes entitled at time t_e and satisfied at time t_s. Then, no new requests may be added to $B(\mathcal{R}_i^r, t)$ at any time $t \in [t_e, t_s)$.*

While Cor. 2 is not depicted in Fig. 5, it is similar Cor. 1. Next, we show that worst-case acquisition delay is $O(1)$ for readers and $O(m)$ for writers. The following lemmas are used in establishing these results.

Lemma 1. *A write request $\mathcal{R}_i^w$ experiences acquisition delay of at most L_{max}^r time units after becoming entitled.*

Proof: Suppose that $\mathcal{R}_i^w$ becomes entitled at time t_e and satisfied at t_s. By Cor. 1, new requests are not added to $B(\mathcal{R}_i^w, t)$ at any $t \in [t_e, t_s)$. Moreover, by Def. 4, each request in $B(\mathcal{R}_i^w, t)$ is a read. By Prop. P1, every request in $B(\mathcal{R}_i^w, t_e)$ is scheduled, and therefore will complete in at most L_{max}^r time units. Thus, by time $t_e + L_{max}^r$, $\mathcal{R}_i^w$ will not be blocked, and by Rule W2, will be satisfied. ■

The following lemma is essential to show that transitive early-on-late blocking does not adversely affect the worst-case blocking bounds.

Lemma 2. *If $\mathcal{R}_i^w$ is the earliest timestamped write request among all incomplete write requests, then $\mathcal{R}_i^w$ is either satisfied or entitled.*

Proof: Suppose not. Then, by Def. 4, for some resource $\ell_a \in \mathcal{D}_i$, either (i) $\mathcal{R}_i^w \neq E(Q_a^w)$, (ii) some request $\mathcal{R}_x^r \in Q_a^r$ is entitled, or (iii) ℓ_a is write locked. By Rule W1, (i) and (iii) are not possible since the write queues are timestamp ordered, and $\mathcal{R}_i^w$ is the earliest incomplete write. For (ii), assume $\mathcal{R}_x^r$ is entitled and $\ell_a \in \mathcal{D}_i \cap \mathcal{D}_x$. Then, by Def. 3, $\mathcal{R}_x^r$ is blocked by a satisfied write request $\mathcal{R}_h^w$. Recall that $\mathcal{R}_h^w$ must request all resources in the read sets of resources in $\mathcal{N}_h$. Further, ℓ_a must be in at least one of these read sets. Thus, $\ell_a \in \mathcal{D}_h \cap \mathcal{D}_i$, and $\mathcal{R}_h^w$ and $\mathcal{R}_i^w$ conflict. Thus, since $ts(\mathcal{R}_i^w) < ts(\mathcal{R}_h^w)$, $\mathcal{R}_h^w$ cannot be satisfied. ■

Theorem 1. *The worst-case acquisition delay of a read request $\mathcal{R}_i^r$ is at most $L_{max}^w + L_{max}^r$ time units.*

Proof: We first show that if $\mathcal{R}_i^r$ is issued at time t_i, then it must become entitled or satisfied by time $t_i + L_{max}^r$. Suppose not. Then, throughout the interval $[t_i, t_i + L_{max}^r)$, $\mathcal{R}_i^r$ is blocked by a non-empty set W of conflicting entitled write requests, for otherwise, $\mathcal{R}_i^r$ would become entitled (by Def. 3) or satisfied (by Rule R1). By Prop. P1 and Lemma 1, each write request $\mathcal{R}_x^w \in W$ will be satisfied by time $t_i + L_{max}^r$. Once all such write requests are satisfied, by Def. 3, $\mathcal{R}_i^r$ will become entitled or satisfied, a contradiction.

If $\mathcal{R}_i^r$ becomes satisfied by time $t_i + L_{max}^r$, then its acquisition delay is at most L_{max}^r time units. Consider now the other possibility, *i.e.*, that $\mathcal{R}_i^r$ becomes entitled by some time $t_e \leq t_i + L_{max}^r$. In this case, we show that $\mathcal{R}_i^r$ is satisfied by time $t_e + L_{max}^w$, from which an acquisition delay of at most $L_{max}^r + L_{max}^w$ time units follows. By Cor. 2, the number of resource-holding write requests blocking $\mathcal{R}_i^r$ monotonically decreases until $\mathcal{R}_i^r$ is satisfied. By Prop. P1, each such blocking request completes in at most L_{max}^w time units. Thus, $\mathcal{R}_i^r$ is satisfied by time $t_e + L_{max}^w$. ■

Theorem 2. *The worst-case acquisition delay of a write request $\mathcal{R}_i^w$ is at most $(m-1)(L_{max}^r + L_{max}^w)$ time units.*

Proof: Suppose that the write request $\mathcal{R}_i^w$ is issued at time t_i and not satisfied immediately. Let $\mathcal{R}_x^w$ be the incomplete write request with the earliest timestamp at t_i ($\mathcal{R}_x^w$ could be $\mathcal{R}_i^w$). By Lemma 2, $\mathcal{R}_x^w$ is either entitled or satisfied at t_i. Suppose the latter is true, *i.e.*, $\mathcal{R}_x^w$ is satisfied at t_i. Then, by Prop. P1, $\mathcal{R}_x^w$ completes its critical section by time $t_i + L_{max}^w$. By Prop. P2, there are at most $m-1$ incomplete write requests with timestamps earlier than that of $\mathcal{R}_i^w$ at t_i. Thus, by time $t_i + L_{max}^w$, there are at most $m-2$ such requests. By Lemmas 1 and 2, the one with the earliest timestamp is satisfied by time $t_i + L_{max}^w + L_{max}^r$, and thus, by Prop. P1, completes its critical section by time $t_i + L_{max}^w + L_{max}^r + L_{max}^w$. Continuing inductively, all earlier-timestamped write requests complete their critical sections by time $t_i + L_{max}^w + (m-2)(L_{max}^r + L_{max}^w)$. At that time, $\mathcal{R}_i^w$ has the earliest timestamp. Hence, by Lemma 1, it is satisfied by time $t_i + L_{max}^w + (m-2)(L_{max}^w + L_{max}^r) + L_{max}^r$, *i.e.*, $\mathcal{R}_i^w$'s acquisition delay is at most $(m-1)(L_{max}^r + L_{max}^w)$ time units.

The remaining possibility to consider is that $\mathcal{R}_x^w$ is entitled at t_i. In this case, by Def. 4, $\mathcal{R}_x^w$ is blocked by some read request $\mathcal{R}_h^r$. Thus, by Prop. P2, there are at most $m-2$ incomplete write requests with timestamps earlier than that of $\mathcal{R}_i^w$ at t_i. Reasoning as above, it follows that $\mathcal{R}_i^w$'s acquisition delay is at most $(m-2)(L_{max}^r + L_{max}^w) + L_{max}^r$ time units. (Note that the blocking of $\mathcal{R}_x^w$ due to $\mathcal{R}_h^r$ is accounted for in this reasoning by Lemma 1.) ■

For a spin-based lock, the worst-case acquisition delay for either reads or writes is the worst-case s-blocking (recall Def. 2). However, non-preemptive spinning can cause other jobs, even non-resource-using jobs, to be pi-blocked (recall Def. 1) upon release. For example, if a high-priority job J_h is released that has sufficient priority to be scheduled, but a low-priority job J_l is spinning non-preemptively, then J_h is pi-blocked. The worst-case pi-blocking can easily be shown to be $O(m)$ through analysis similar to single-resource spin-based mutex or reader-writer locks [3, 5].

In the remainder of this section, we briefly summarize four additional optimizations that can be incorporated into the R/W RNLP to improve average-case parallelism, and thus responsiveness in many cases. These optimizations do not affect the worst-case blocking bounds. We describe them independently for ease of exposition, but note that they can be combined in a real implementation. We note that the improved average-case responsiveness these optimizations provide result in larger safety margins, which are significant in safety-critical systems. While such systems must be proved correct, such proofs are built upon hardware models and system assumptions that may perhaps be incorrect, and thus larger safety margins are desirable in practice.

C. Requesting Fewer Resources

Requiring write requests to lock an expanded set of resources enabled us to establish Lemma 2. This lemma can instead be established by utilizing *placeholders*, which allow for increased parallelism. Specifically, we require a write request $\mathcal{R}_i^w$ to enqueue a *placeholder* $\mathcal{R}_i^p$ in the queues of all non-needed resources that we earlier required $\mathcal{R}_i^w$ to request in Sec. III-A. In this case, the R/W RNLP functions as previously described with the following exceptions. A placeholder is never entitled or satisfied. Instead, each placeholder $\mathcal{R}_i^p$ is removed from the write queue in which it is enqueued

when $\mathcal{R}_i^w$ becomes entitled or satisfied. Therefore, until $\mathcal{R}_i^w$ becomes entitled, its associated placeholders prevent later-issued write requests from becoming entitled or satisfied, thereby ensuring that Lemma 2 is not violated.

Using placeholders, allows for additional concurrency. However, this parallelism is not reflected in the worst-case blocking bounds under our analysis assumptions. In future work, it may be possible to reflect the improved concurrency via more fine-grained blocking analysis, similar to that presented in [3, Chaps. 5,6].

D. R/W Mixing

Before we show how to relax Assumption 1 to allow jobs to issue *mixed* requests, we first extend our notation. We denote the set of resources that $\mathcal{R}_i$ needs read (write) access to as $\mathcal{N}_i^r$ ($\mathcal{N}_i^w$) and we let $\mathcal{N}_i = \mathcal{N}_i^r \cup \mathcal{N}_i^w$. If $\mathcal{N}_i^w = \emptyset$, then we say $\mathcal{R}_i$ is a read request, otherwise we say that $\mathcal{R}_i$ is a write request. With this notation, a mixed request is a write request $\mathcal{R}_i^w$ with $\mathcal{N}_i^r \neq \emptyset$ and $\mathcal{N}_i^w \neq \emptyset$. We also adapt our definition of the read shared relation, $\sim$. Given two resources ℓ_a and ℓ_b, we say that ℓ_b is read shared with ℓ_a, if for some potential request $\mathcal{R}_i$, $\ell_a \in \mathcal{N}_i$, and $\ell_b \in \mathcal{N}_i^r$.[4]

The rules of the R/W RNLP support mixed requests with only a minor modification. Intuitively, a mixed request is treated almost exactly like an exclusively write request, though there are three key differences. First, an entitled mixed request can be satisfied if all resources for which it requires read access are either unlocked *or* read locked. Second, when a mixed request is satisfied, resources for which read-only access is needed are read locked, not write locked, which allows read requests to be satisfied concurrently. Third, with respect to writer entitlement (Def. 4), blocked write requests treat a resource that is read locked by a mixed request as if it were write locked.

E. R-to-W Upgrading

We call a read request that can be upgraded to a write request, as previously described, an *upgradeable* request, which we denote as $\mathcal{R}_i^u$. Intuitively, we treat an upgradeable request as a write request that can optimistically execute read-only code while its needed resources are read-locked to determine if write access is necessary. Since the blocking bounds of a write request assume that it will be blocked by other read requests, the optimistic execution of the read-only section essentially executes for free. Thus, an upgradeable request has the same worst-case blocking bounds as a write request, but may offer additional concurrency if the write segment of the critical section is not required.

To support this behavior in the R/W RNLP, we treat $\mathcal{R}_i^u$ as two separate requests, a read request,[5] $\mathcal{R}_i^{u_r}$ and a write request $\mathcal{R}_i^{u_w}$, which can cancel each other if necessary.[6] When $\mathcal{R}_i^u$ is issued, $\mathcal{R}_i^{u_r}$ is enqueued as a read request and $\mathcal{R}_i^{u_w}$ is enqueued as a write request. If $\mathcal{R}_i^{u_w}$ is satisfied before $\mathcal{R}_i^{u_r}$, then $\mathcal{R}_i^{u_r}$ is canceled and removed from all read queues. If $\mathcal{R}_i^{u_r}$ is satisfied first, it executes its critical section, and upon completion or realization that upgrading is not necessary, $\mathcal{R}_i^{u_w}$ is canceled and removed from all write queues in which it is enqueued. If $\mathcal{R}_i^u$ must be upgraded, then when the read-only segment of its critical section completes, all resources are unlocked. Later, when $\mathcal{R}_i^{u_w}$ is satisfied, the job can execute the write segment of its critical section. Note that the state of any read objects may change between $\mathcal{R}_i^{u_r}$ completing and $\mathcal{R}_i^{u_w}$ being satisfied. Thus, $\mathcal{R}_i^{u_w}$ may need to re-read data. If this behavior is unacceptable for a given application, a write request should instead be issued for all resources that could be written.

F. Incremental locking

Next, we show how the R/W RNLP can be adapted to allow jobs to incrementally request resources they use within a critical section, as described earlier. We assume that it is known a priori the set of all resources that could possibly be requested in this incremental fashion. While this assumption may seem limiting, such information is necessary for many real-time locking protocols, such as the well-known priority ceiling protocol (PCP) [9].

To support this functionality, we initially treat $\mathcal{R}_i$ as if it were a request for all of the resources for which it could potentially lock incrementally. From Cors. 1 and 2, after $\mathcal{R}_i$ becomes entitled, no conflicting request can be satisfied before $\mathcal{R}_i$. Thus, if $\mathcal{R}_i$ only initially requires access to some subset $s \subseteq \mathcal{D}_i$, it can be granted access as soon as it is entitled and each resource $\ell_a \in s$ is not locked by a conflicting request. If $\mathcal{R}_i$ later needs some additional resource(s) $s' \subseteq \mathcal{D}_i \setminus s$, then it waits until each $\ell_a \in s'$ is not locked by a conflicting request. However, because $\mathcal{R}_i$ is entitled to all resources in $\mathcal{D}_i$, the total duration of acquisition delay across all incremental requests is at most the worst-case acquisition delay previously proven in Theorems 1 and 2.

Note that entitlement serves a similar purpose as priority ceilings [9], since it prevents later-issued requests from acquiring resources that may be incrementally requested.

IV. Evaluation

To evaluate the practicality of the R/W RNLP, we implemented the spin-based variant (without the optimizations just described), and conducted a *schedulability* study, in which we applied a *schedulability test* to tens of thousands of randomly generated task systems to determine the fraction of systems for which it could be shown that no deadlines are missed.

Implementation. We implemented the R/W RNLP in user-space on top of LITMUS$^{\mathrm{RT}}$ [7], a real-time extension of Linux. Our implementation was designed for a partitioned scheduler ($c = 1$); the partitioned earliest-deadline-first (EDF) scheduler was used in our evaluations. The implementation, for which pseudocode is available online [11],

[4] The read sharing relation may not be symmetric with mixed requests.

[5] We assume the worst-case execution time of the read-only segment of the upgradeable request finishes in L_{max}^r time.

[6] With respect to Prop. P2, an upgradeable request is only one request.

utilizes two locks, a mutex lock, and a phase-fair reader writer lock, as well as a novel wait-free technique. The phase-fair lock guards access to bitmasks, which store per-resource state, and the mutex lock protects access to all write queues. Importantly, in our implementation, read requests need only acquire read access to the phase-fair lock, and critical sections for this lock (both read and write) are very short—only a few instructions.

We evaluated our implementation on a 2.67Ghz quad-core Intel Core i7-920 processor. We measured the *overhead* of the lock and unlock procedures used in the implementation, where such overhead is defined to be the total procedure runtime minus any time spent busy waiting for other requests to complete. In total, we measured overheads for 18 task system configurations, similar to those presented in the schedulability study below. These task systems were chosen to ascertain how the implementation behaved under high contention, and under different ratios of read to write requests. Each task set was executed for two minutes. The largest median- and worst-case overheads observed across all task sets are reported in Tbl. I. These overheads are sufficiently small to demonstrate that the R/W RNLP can be practically implemented. Furthermore, read requests have smaller overheads than writes, which is desirable for a R/W locking protocol that is best used when reads are more common than writes.

Schedulability. Next, we present an evaluation of the R/W RNLP on the basis of schedulability. These experiments are intended to show the effects that blocking bounds have on schedulability, and do not include overheads. A full experimental evaluation incorporating overheads is beyond the scope of this paper and is deferred to future work.

We randomly generated sporadic task systems using a similar experimental design as previous studies (*e.g.*, [6]). We assume that tasks are partitioned onto $m = 4$ processors, and scheduled in EDF order.[7] We generated task systems with a total system utilization in $\{0.1, 0.2 \ldots, 4.0\}$. Per-task utilizations in a given task system were chosen to be *medium* or *heavy*, which correspond to uniformly distributed utilizations in the range $[0.1, 0.4]$ or $[0.5, 0.9]$, respectively. The periods of all tasks were chosen uniformly from either $[3, 33]\,\mathrm{ms}$ (*short*) or $[50, 250]\,\mathrm{ms}$ (*long*). All tasks were assumed to access shared resources, but only $\mathcal{P}^r \in \{50, 70, 90\}\%$ of the tasks issue read requests. Each read (write) request was configured to accesses $N^r \in \{1, 2, 4\}$ (resp., $N^w \in \{1, 2, 4\}$) of 50 resources. Read and write critical sections lengths for each job were exponentially distributed with a mean of either $10\,\mu\mathrm{s}$ (*small*) or $1000\,\mu\mathrm{s}$ (*long*).

For each generated task set, we evaluated schedulability using four different real-time locking protocols, OMLP mutex group locks [6], the RNLP [10], Phase Fair (PF) R/W group locks [5, 6], and the R/W RNLP presented herein.

[7]In many safety-critical embedded-systems domains, enabling a quad-core processor to be used would be a tremendous innovation.

Procedure	Median (μs)	Worst (μs)
read lock	0.106	0.168
read unlock	0.048	0.124
write lock	0.478	0.626
write unlock	0.129	0.215

Table I: Lock and unlock overheads for read and write requests. The worst-case overhead reported is the 99^{th} percentile, to filter the effects of interrupts and other spurious behavior.

Blocking bounds under each protocol were evaluated using fine-grained analysis similar to that in [3]. For the RNLP and the R/W RNLP, additional optimizations were also included, which are based on evaluating possible transitive blocking relationships.[8] In future work, we plan to explore linear-programming-based blocking analysis techniques, similar to those recently presented by Brandenburg [2].

While our experiments generated hundreds of schedulability graphs , here we present in Fig. 5 a small selection that depict relevant trends. . All generated graphs can be found in the appendix.In Fig. 5, the curves denoted NOLOCK depict schedulability assuming no resource requests, while the remaining curves depict schedulability using the locking protocol as labeled. The protocol with a curve closest to NOLOCK provides the best schedulability.

Obs. 1. In all observed cases, schedulability under the fine-grained locking protocols, the RNLP and the R/W RNLP, was no worse than schedulability using the corresponding coarse-grained locking protocols, the OMLP and phase-fair R/W locks, respectively.

This observation is supported by insets (a) and (b) of Fig. 5. In inset (a), the R/W RNLP is roughly the same as phase-fair R/W locks, while the RNLP significantly outperforms the OMLP. However, in many cases, such as in inset (b), the fine-grained RNLP and R/W RNLP offer improved schedulability over their coarse-grained counterparts.

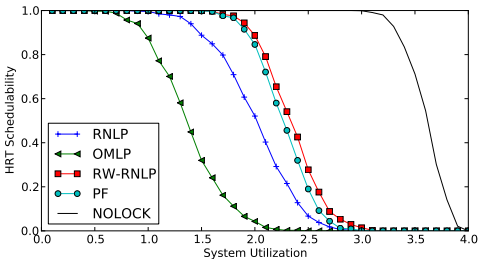
Obs. 2. For read-dominated workloads, *i.e.*, those with larger $\mathcal{P}^r$, phase-fair R/W locks, and the R/W RNLP perform comparatively better. The R/W RNLP performs comparatively better than phase-fair locks when N^r is small.

This observation is supported by inset (a) of Fig. 5, in which read critical section lengths are large and write critical section lengths are small, and 90% of tasks issue read requests. Additionally, in inset (b), in which $N^r = 1$, schedulability under the R/W RNLP is better than under phase-fair locks. Note that the gap between phase-fair locks and the R/W RNLP is smaller for larger N^r on account of write requests being forced to request unneeded resources.

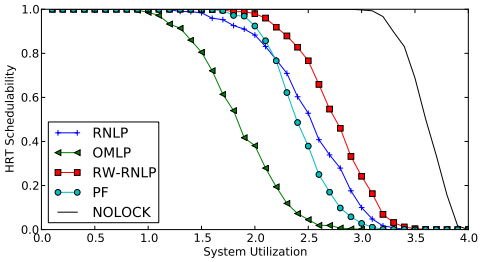
Obs. 3. In some cases in which there are a comparatively large number of write requests, the RNLP offers slightly improved schedulability over the R/W RNLP.

This observation is supported by inset (c) of Fig. 5, in

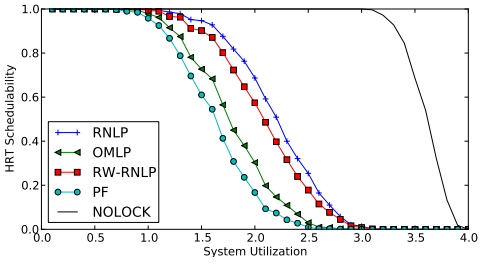
[8]Tighter analysis than that employed in these experiments is possible using an exponential-time algorithm. While this may be feasible for some task systems, it is too expensive in schedulability studies, which evaluate the schedulability of tens of thousands of task systems.



(a) $\mathcal{P}^r = 90\%$, $N^r = 2$, $N^w = 4$, large read and small write critical sections.



(b) $\mathcal{P}^r = 50\%$, $N^r = 1$, $N^w = 2$, large read and small write critical sections.



(c) $\mathcal{P}^r = 50\%$, $N^r = 2$, $N^w = 4$, large read and write critical sections.

Figure 5: Schedulability results.

which 50% of tasks issue write requests. Under the R/W RNLP, writer blocking is increased ($(m-1)(L^r_{max}+L^w_{max})$ instead of $(m-1)L_{max}$ for the RNLP) to allow for $O(1)$ reader blocking. When writes are comparatively common, the benefits of $O(1)$ reader blocking in some cases do not outweigh the cost of increased writer blocking, and thus the RNLP may outperform the R/W RNLP by a small margin.

These schedulability results, in conjunction with our measured overheads, demonstrate that fine-grained mutex and R/W locks are practically implementable, and offer improved schedulability over coarse-grained alternatives.

V. Conclusions

We have presented the R/W RNLP, which is the first fine-grained real-time multiprocessor locking protocol that supports reader/writer sharing. Having to support two different operations on resources—reads and writes—introduces considerable difficulty in designing a fine-grained reader/writer real-time locking protocol. The R/W RNLP resolves the R/W ordering dilemma using the concept of entitled waiting. The R/W RNLP also prevents transitive early-on-late blocking that would increase worst-case pi-blocking bounds.

We implemented the R/W RNLP and measured lock/unlock overheads, which were small. We also presented the first schedulability study of fine-grained locking under the RNLP and the R/W RNLP. These results suggest that these fine-grained locking protocols are useful in practice.

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Appendix

Let I be an invocation of the locking protocol (read or write issuance or read or write completion) at time t_I, and let $t_I^- = \lim_{\epsilon \to 0} t_I - \epsilon$ be the time instant immediately prior to that invocation. We say that I *entitles* (*satisfies*) a request $\mathcal{R}_i$ if $\mathcal{R}_i$ becomes entitled (satisfied) as a result of I (*i.e.*, $\mathcal{R}_i$ is entitled (satisfied) after I but not before I).

Lemma 3. *The following properties of satisfaction and entitlement hold.*

- ***E1*** *If I satisfies $\mathcal{R}_i^r$, then I is either a read issuance or a write completion.*
- ***E2*** *If I satisfies $\mathcal{R}_i^w$, then I is either a write issuance, a read completion, or a write completion.*
- ***E3*** *If I satisfies $\mathcal{R}_i^r$ and I is the issuance of read request $\mathcal{R}_x^r$, then $\mathcal{R}_i^r = \mathcal{R}_x^r$.*
- ***E4*** *If I satisfies $\mathcal{R}_i^w$ and I is the issuance of write request $\mathcal{R}_x^w$, then $\mathcal{R}_i^w = \mathcal{R}_x^w$.*

E5 *If I satisfies $\mathcal{R}_i^w$ and I is the completion of a conflicting read request $\mathcal{R}_x^r$, then at time t_I^-, $\mathcal{R}_i^w$ is entitled, and $B(\mathcal{R}_i^w, t_I^-) = \{\mathcal{R}_x^r\}$.*

E6 *If I satisfies $\mathcal{R}_i^r$ and I is the completion of a conflicting write request $\mathcal{R}_x^w$, then at time t_I^-, $\mathcal{R}_i^r$ is entitled, and $B(\mathcal{R}_i^r, t_I^-) = \{\mathcal{R}_x^w\}$.*

E7 *If I satisfies $\mathcal{R}_i^w$ and I is the completion of a conflicting write request $\mathcal{R}_x^w$, then at time t_I^-, for each $\ell_a \in \mathcal{D}_i^w$, $\mathcal{R}_i^w = E(Q_a^w)$ and no read request in Q_a^r is entitled, and for each resource $\ell_a \in \mathcal{D}_i$, ℓ_a is either locked by $\mathcal{R}_x^w$, or unlocked.*

E8 *If I entitles $\mathcal{R}_i^r$, then I is a read issuance or a read completion.*

E9 *If I entitles $\mathcal{R}_i^w$, then I is a write issuance or a write completion.*

E10 *If $\mathcal{R}_i^w$ and $\mathcal{R}_x^r$ conflict, then they are not simultaneously entitled.*

Proof: We prove the stated properties in succession.

Prop. E1. If I is a write issuance, then it releases no resources for which $\mathcal{R}_i^r$ is waiting, and hence cannot cause $\mathcal{R}_i^r$ to become satisfied. On the other hand, if I is a read completion and $\mathcal{R}_i^r$ is not entitled prior to I, then by Rule R2, I cannot cause $\mathcal{R}_i^r$ to become satisfied. If I is a read completion and $\mathcal{R}_i^r$ is entitled (and hence blocked) prior to I, then $B(\mathcal{R}_i^r, t_I^-)$ contains at least one write request; I cannot cause this write request to complete, thus following I, $\mathcal{R}_i^r$ remains entitled (and hence blocked).

Prop. E2. Like the first case considered above, I cannot cause $\mathcal{R}_i^w$ to be become satisfied if it is a read issuance.

Prop. E3. If I is the issuance of read request $\mathcal{R}_i^r$, then it does not unlock any resources, and hence cannot cause any previously issued request to become satisfied. However, by Rule R1, I may cause $\mathcal{R}_i^r$ itself to become satisfied.

Prop. E4. Follows similarly to Prop. E3.

Prop. E5. By Rule W2, if I satisfies $\mathcal{R}_i^w$, then prior to I, $\mathcal{R}_i^w$ must have been entitled, and $\mathcal{R}_x^r$ must have been the only request that blocked $\mathcal{R}_i^w$.

Prop. E6. Follows similarly to Prop. E5 (using Rule R2).

Prop. E7. By Rule W2, if I satisfies $\mathcal{R}_i^w$, then it must be entitled. However, because $\mathcal{R}_x^w$ is satisfied at time t_I^- and conflicts with $\mathcal{R}_i^w$, $\mathcal{R}_i^w$ is not entitled at time t_I^- by Def. 4. For $\mathcal{R}_i^w$ to be satisfied at time t_I, by Rule W2, it must become entitled at time t_I. By Def. 4, for $\mathcal{R}_i^w$ to be entitled at time t_I, after $\mathcal{R}_x^w$ unlocks all resources in $\mathcal{D}_x$, for each $\ell_a \in \mathcal{D}_i$, $\mathcal{R}_i^w = E(Q_a^w)$, no read request in Q_a^r is entitled, and ℓ_a is not write locked. Furthermore, since $\mathcal{R}_i^w$ is satisfied at time t_I, all resources in $\mathcal{D}_i$ are unlocked after $\mathcal{R}_x^w$ completes. The claim follows.

Prop. E8. By Def. 3, if $\mathcal{R}_i^r$ is unsatisfied and not entitled prior to I, *i.e.*, at time t_I^-, then it is blocked at t_I^- by an entitled write request, $\mathcal{R}_x^w$. Thus, by Def. 4, the following hold at time t_I^-: $\mathcal{R}_x^w$ is at the head of each write queue in which it is enqueued; no resource for which $\mathcal{R}_x^w$ is waiting is write locked; and $\mathcal{R}_x^w$ is not blocked by any entitled read request. Recall that entitled requests are, by definition, unsatisfied. Thus, $\mathcal{R}_x^w$ must be blocked by at least one *satisfied* read request at t_I^-. Now, if I is a write issuance, then $\mathcal{R}_x^w$ clearly remains entitled at t_I, and hence $\mathcal{R}_i^r$ is not entitled at t_I. On the other hand, if I is a write completion, then it may cause certain entitled reads to become satisfied; however, it will not cause the satisfied read that blocks $\mathcal{R}_x^w$ to complete. Thus, as before, $\mathcal{R}_x^w$ remains entitled at t_I, and hence $\mathcal{R}_i^r$ is not entitled at t_I.

Prop. E9. Follows similarly to Prop. E8.

Prop. E10. Defs. 3 and 4 preclude conflicting read and write requests from both becoming entitled due to *separate* invocations of the locking protocol. Props. E8 and E9 preclude such requests from both becoming entitled due to the *same* invocation of the locking protocol. ■

Next we show that once a write request $\mathcal{R}_i^w$ is entitled, no conflicting request $\mathcal{R}_x$ can be satisfied before it, which implicitly bounds how long it remains entitled.

Lemma 4. *If a write request $\mathcal{R}_i^w$ is entitled before and after I and $\mathcal{R}_x \in B(\mathcal{R}_i^w, t_I)$, then $\mathcal{R}_x \in B(\mathcal{R}_i^w, t_I^-)$.*

Proof: Suppose not. Then the mentioned request $\mathcal{R}_x$ (read or write) is satisfied by I, and by the definition of $B(\mathcal{R}_i^w, t_I)$, $\mathcal{R}_x$ conflicts with $\mathcal{R}_i^w$.

Assume that $\mathcal{R}_x^r$ is a read request. Then, by Prop. E1, I is a read issuance or a write completion. If I is a read issuance, then by Prop. E3, $\mathcal{R}_x^r$ is issued at t_I; however, by Rule R1, I cannot then satisfy $\mathcal{R}_x^r$ because $\mathcal{R}_i^w$ is entitled. If I is a write completion, then by Prop. E6, $\mathcal{R}_x^r$ is entitled at t_I^-; however, by Prop. E10, this implies that $\mathcal{R}_i^w$ is not entitled at t_I^-, contradicting the lemma statement.

Now assume that $\mathcal{R}_x^w$ is a write request. Then, by Prop. E2, I is a write issuance, read completion, or write completion. If I is a write issuance or read completion, then we can derive a contradiction via reasoning similar to that above (but using Prop. E4, Rule W1, and Prop. E5 together with Prop. E10). So, suppose that I is a write completion. By the statement of the lemma, it follows that $\mathcal{R}_i^w$ and $\mathcal{R}_i^w$ conflict and share some resource ℓ_c. Moreover, by Prop. E7, $\mathcal{R}_x^w = E(Q_c^w)$ holds at t_I^-. However, by Def. 4, this contradicts the assumption that $\mathcal{R}_i^w$ is entitled at t_I^-. ■

Similar to Lemma 4, we next show that once a read request $\mathcal{R}_i^r$ becomes entitled, no conflicting request can be satisfied before it.

Lemma 5. *If a read request $\mathcal{R}_i^r$ is entitled before and after I and $\mathcal{R}_x^w \in B(\mathcal{R}_i^w, t_I)$, then $\mathcal{R}_x^w \in B(\mathcal{R}_i^w, t_I^-)$.*

Proof: Suppose not. Then, the mentioned write request $\mathcal{R}_x^w$ is satisfied by I, and by the definition of $B(\mathcal{R}_i^w, t_I)$, $\mathcal{R}_x^w$ conflicts with $\mathcal{R}_i^w$. Thus, by Prop. E2, I is either a write issuance, read completion, or write completion. If I is a write issuance, then by Prop. E4, I is the issuance of $\mathcal{R}_x^w$ itself; however, by Rule W1, I cannot satisfy $\mathcal{R}_x^w$, because $\mathcal{R}_i^r$ is entitled prior to I. If I is a read (resp., write) completion, then by Prop. E5 (resp., Prop. E7), $\mathcal{R}_x^w$ is entitled at t_I^-; however, by Prop. E10, this contradicts the assumption that $\mathcal{R}_i^r$ is entitled at t_I^-. ■

In this appendix, we present the pseudocode for the R/W RNLP. Our R/W RNLP implementation uses bitmasks to encode the state of each of the resources. These bitmasks are protected by a phase-fair lock. Importantly, read requests only ever need read access to this lock. Write requests are queued in shared per-resource FIFO queues, and a mutex lock is used to protect accesses, and ensure that enqueues into multiple write queues is effectively atomic.

Shared variables in the R/W RNLP implementation.

```
1: Phase-fair PFLock
2: Mutex MLock
3: bitmask Unavailable, WEntitled, WLocked initially 0
4: Request struct WQueue[0..q−1][0..m−1] initially NULL
5: int WHead[0..q − 1], WTail[0..q − 1] initially 0
6: int Entry[0..m − 1] initially 0
7: int Exit[0..m − 1] initially 0
8: Request struct Requests[0..m − 1] initially NULL
```

The implementation contains many shared-state variables, which are depicted in Algorithm . The mutex lock *MLock* is used to ensure that enqueueing into the proper wait queues is atomic. The phase-fair lock *PFLock* protects the state variables that encode that status of the resources. The variables *Unavailable*, *WEntitled*, and *WLocked* are bitmasks where each bit corresponds to a single resource. *Unavailable* encodes which resources are not available to be locked, *WEntitled* encodes whether or not there is an entitled write request waiting for the given resource, and *WLocked* encodes whether the resource is write locked or not. Write requests are stored in circular buffers, *WQueue*, and *WHead* and *WTail* store pointers to the head and the tail of each resource queue. The *Entry* and *Exit* are used in a lock-free fashion to allow waiting requests to detect when a blocking request has completed. The details of this logic will be described later. Finally, *Requests* stores a all of the outstanding requests, one per processor.

The data structure corresponding to each individual request is shown in Algorithm 2. This structure encodes what resources that have been requested, the status of the request (*i.e.*, whether it is waiting, entitled, or acquired), the type of the request (*i.e.*, read or write), and the processor from which the request was issued.

2 Request-struct members.

```
1: bitmask resources
2: status ∈ {WAITING, ACQUIRED, ENTITLED}
3: type ∈ {READ, WRITE}
4: int proc // the partition from which the request was
   issued.
```

We begin by describing the read-lock code in Algorithm 3. To begin, the request struct r is initialized, and *Entry*[*proc*] is incremented. This indicates to other processors that another

3 Pseudocode for the R/W RNLP read lock function.

```
1: procedure READ LOCK(resources)
2:     r ← Requests[proc]
3:     r.resources ← resources
4:     r.type ← READ
5:     r.status ← WAITING
6:     Entry[proc]+ = 1
7:     read-lock PFLock
8:     if (r.resources & Unavailable) = 0 then
9:         r.status ← ACQUIRED
10:    end if
11:    unlock PFLock
12:    if r.status ≠ ACQUIRED then
13:        while r.resources & WEntitled ≠ 0 do
14:        end while
15:        r.status ← ENTITLED
16:        while r.resources & WLocked ≠ 0 do
17:        end while
18:    end if
19: end procedure
```

request has been issued by processor *proc*. Next a check is performed to determine if the request can be satisfied immediately. This check can be performed efficiently using bitmasks, though it must be done in a read critical section after acquiring *PFLock*. In the case that the request is not satisfied immediately, then it must wait for conflicting entitled and/or satisfied write requests to complete, as in Lines 12–18.

4 Pseudocode for the R/W RNLP read unlock function.

```
procedure READ UNLOCK(resources)
    Exit[proc]+ = 1
    Requests[proc] ← NULL
end procedure
```

The read unlock logic, shown in Algorithm 4, is quite simple. The per-processor *Exit* counter is incremented, which may trigger waiting write requests to proceed, as seen later, and the request is removed from the *Requests* array.

The write lock logic is shown in Algorithm 5. In our discussion of this procedure, we assume that τ_i has issued $\mathcal{R}_i^w$ and is executing Algorithm 5. After initializing the request struct, in Lines 7–12, req is enqueued into all necessary wait queues. This enqueueing is protected by the *MLock* mutex lock, so as to ensure that enqueueing in all queues is effectively atomic. Next, in Lines 13–16, τ_i busy waits until it is the head of each wait queue in which it is enqueued. At this point, the τ_i becomes entitled, and all requested resources are marked as unavailable, which prevents the resources from being acquired by a later-issued request. In Lines 21–30, τ_i waits for each satisfied read request to complete. τ_i detects that a conflicting read request has completed when it increments the per-processor *Exit* counter

5 Pseudocode for the write lock function.

```
1:  procedure WRITE LOCK(resources)
2:      req ← requests[proc]
3:      req.resources ← resources
4:      req.type ← WRITE
5:      req.status ← WAITING
6:      Entry[proc] += 1
7:      Lock MLock
8:      for r ∈ resources do
9:          WQueue[r][wtail[r]] ← req
10:         wtail[r] ← (wtail[r] + 1) % m
11:     end for
12:     Unlock MLock
13:     for r ∈ resources do
14:         while WQueue[r][WHead[r]] ≠ req do
15:         end while
16:     end for
17:     Write lock PFLock
18:     Unavailable ← Unavailable | req.resources
19:     req.status ← ENTITLED
20:     Write unlock PFLock
21:     for i ∈ {0, ..., m − 1} \ {req.processor} do
22:         start ← Entry[i]
23:         end ← Exit[i]
24:         tmp ← Requests[i]
25:         if start = end ∨ tmp.type = WRITE ∨ tmp.status = WAITING ∨
    tmp.resources & req.resources = 0 then
26:             continue
27:         end if
28:         while Exit[i] < start do
29:         end while
30:     end for
31:     write-lock PFLock
32:     WEntitled & req.resources // Zero the bits in
    WEntitled corresponding to each requested resource
33:     wlocked ← wlocked | req.resources
34:     unlock PFLock
35: end procedure
```

to be equal to the per-processor *Entry* counter. Finally, before $\mathcal{R}_i^w$ is finally satisfied, the resources it requested are marked as locked in *WLocked* and no longer entitled in *WEntitled*.

The last procedure in our R/W RNLP implementation is write unlock, which is shown in Algorithm 6. This procedure is predominately bookkeeping. The per-processor *Exit* counter is incremented, and the per-processor request struct is nullified. The unlocked resources are reflected in both *WLocked* and *Unavailable*, and the head of each queue is incremented.

6 Pseudocode for the R/W RNLP write unlock function.

```
procedure WRITE UNLOCK(resources)
    let req = requests[proc]
    exit[proc] += 1
    requests[proc] ← NULL
    write-lock PFLock
    WLocked & req.resources // Zero the bits in
WLocked corresponding to each requested resource
    Unavailable & req.resources // Zero the bits in
Unavailable corresponding to each requested resource
    unlock PFLock
    Lock MLock
    for r ∈ resources do
        WQueue[r][WHead[r]] ← NULL
        WHead[r] ← (WHead[r] + 1) % m
    end for
    Unlock MLock
end procedure
```

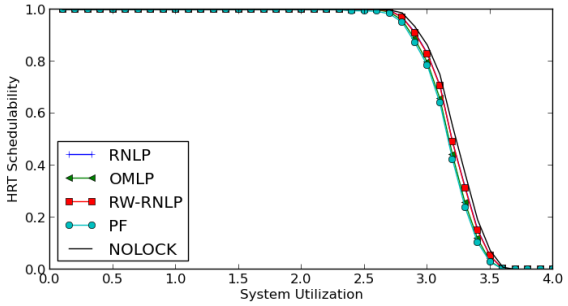

Figure 6: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

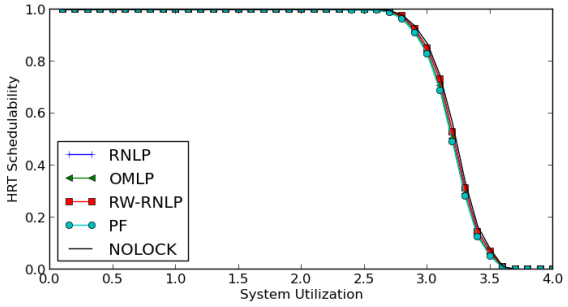

Figure 7: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

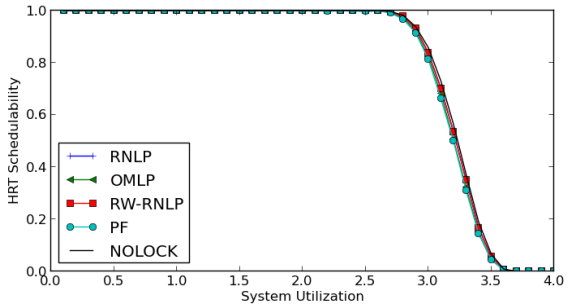

Figure 8: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

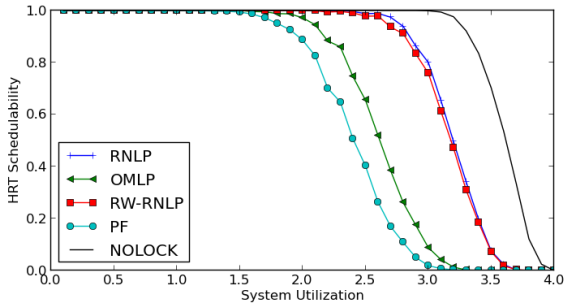

Figure 9: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

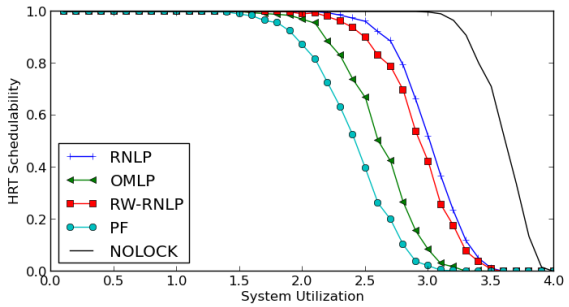

Figure 10: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

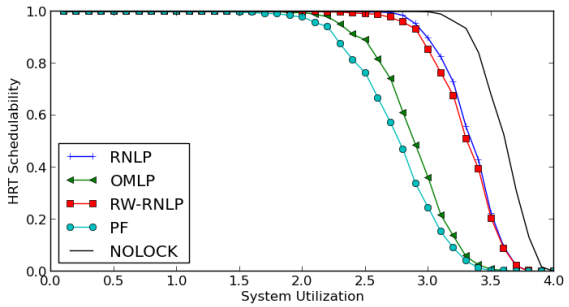

Figure 11: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

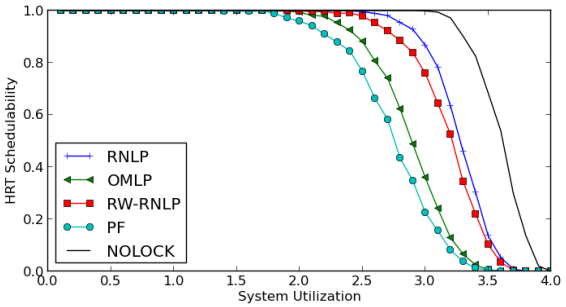

Figure 12: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

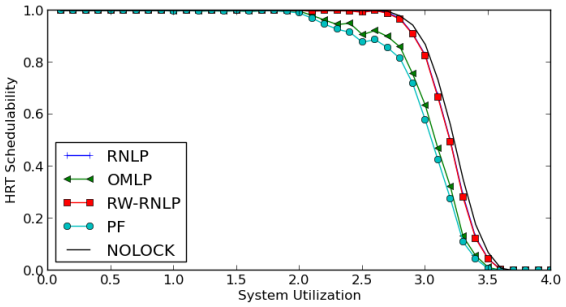

Figure 13: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

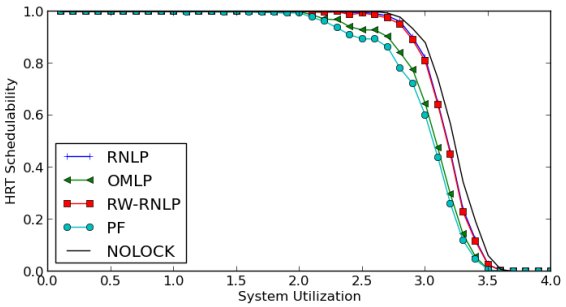

Figure 14: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

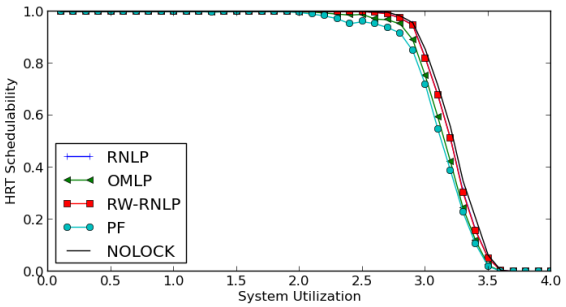

Figure 15: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

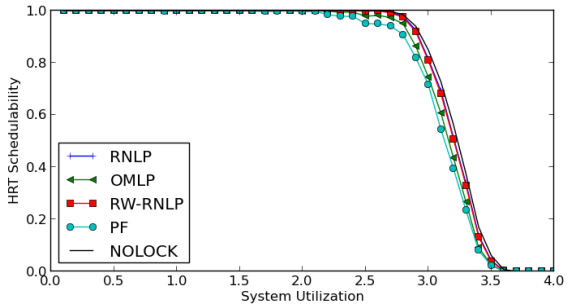

Figure 16: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

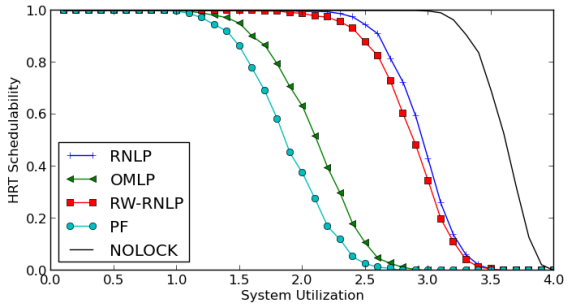

Figure 17: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

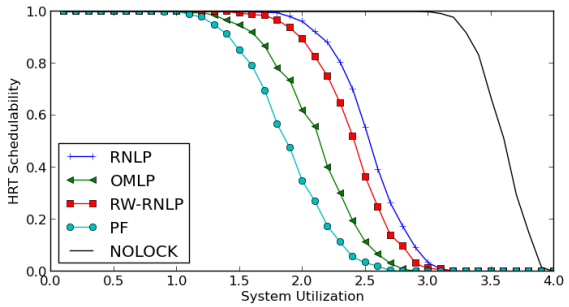

Figure 18: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

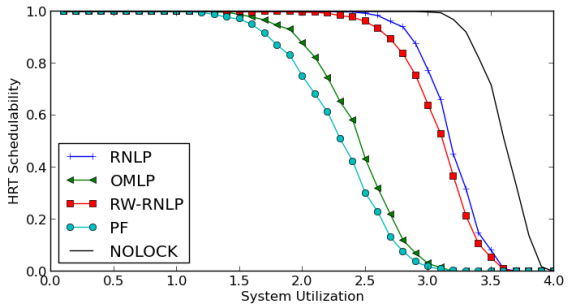

Figure 19: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

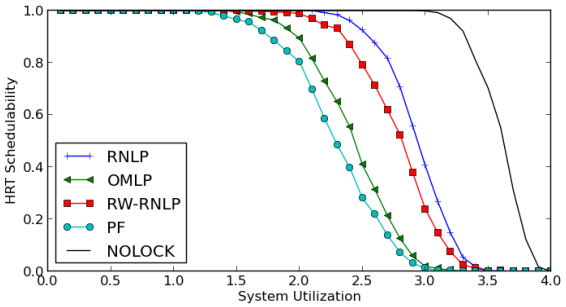

Figure 20: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

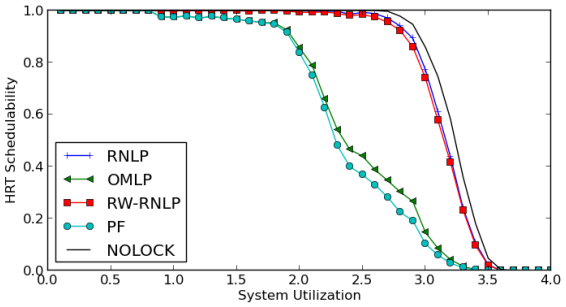

Figure 21: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

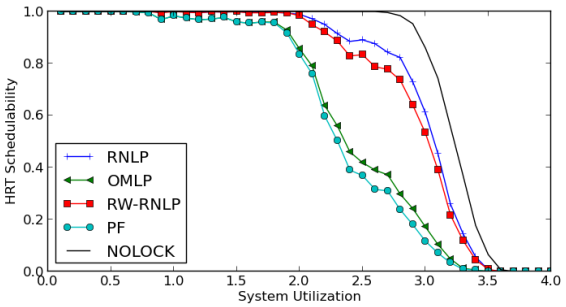

Figure 22: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

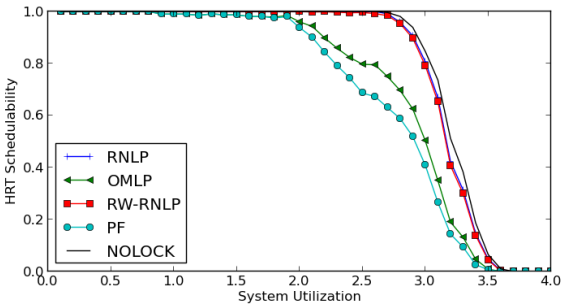

Figure 23: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

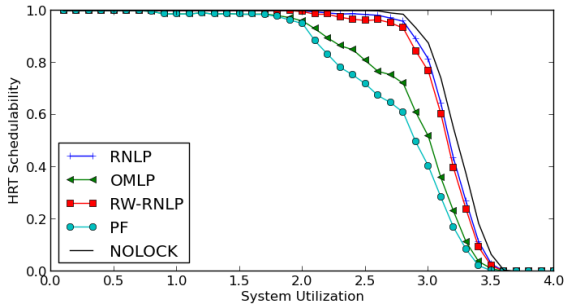

Figure 24: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

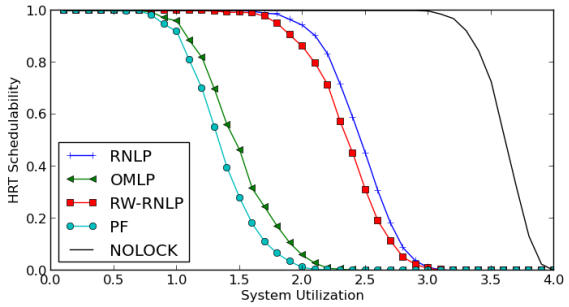

Figure 25: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

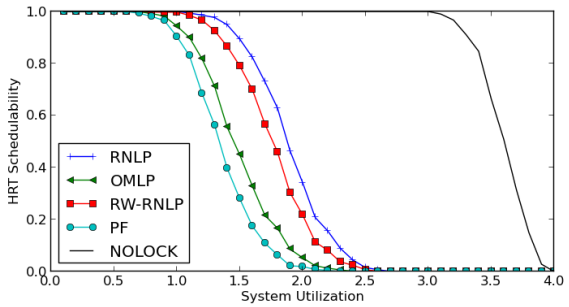

Figure 26: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

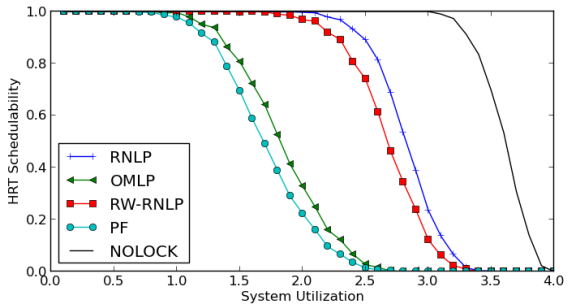

Figure 27: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

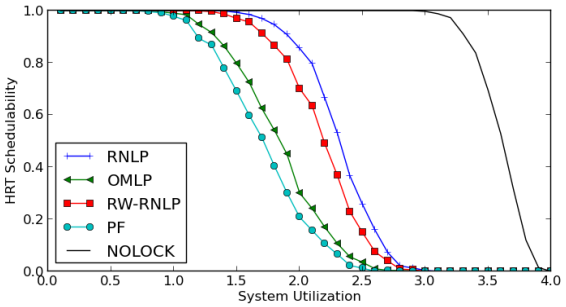

Figure 28: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

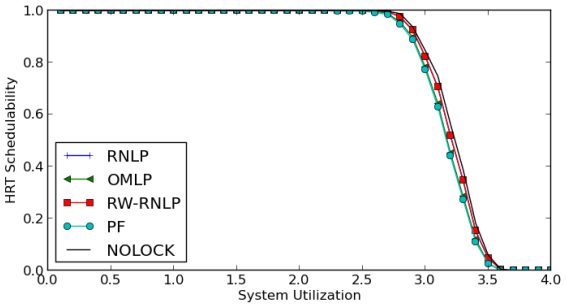

Figure 29: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

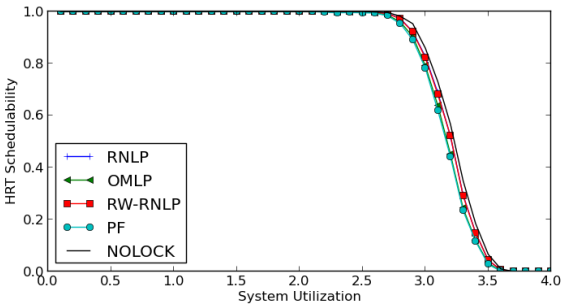

Figure 30: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

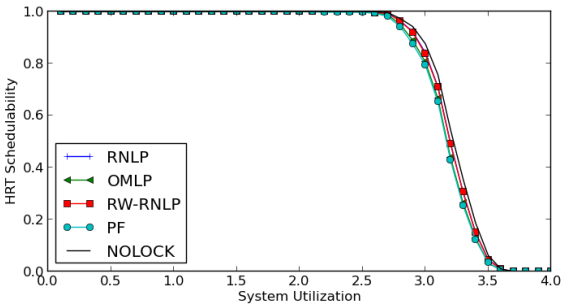

Figure 31: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

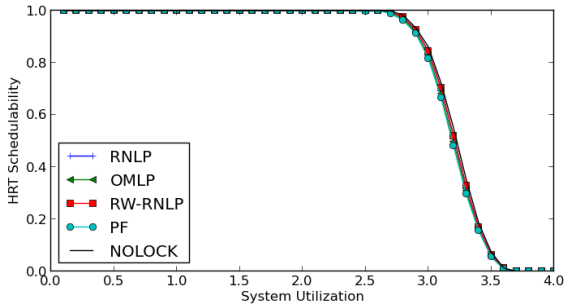

Figure 32: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

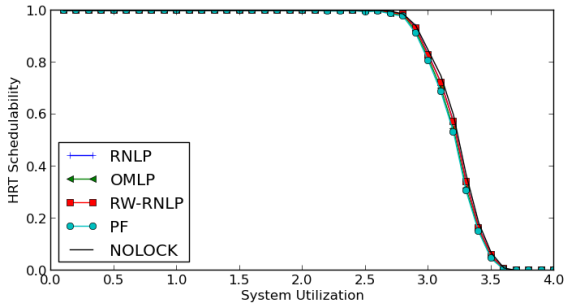

Figure 33: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

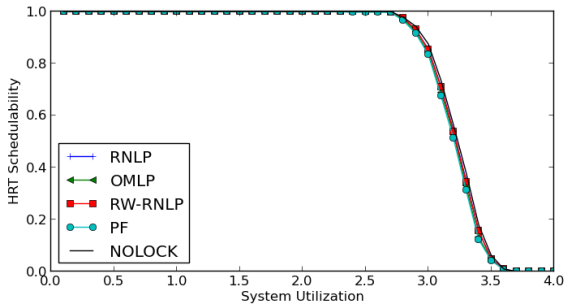

Figure 34: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

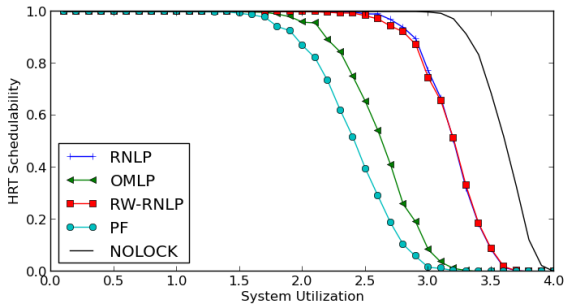

Figure 35: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

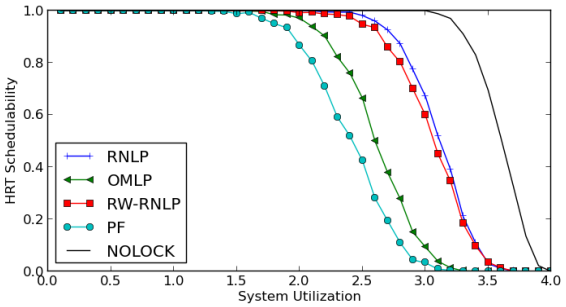

Figure 36: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

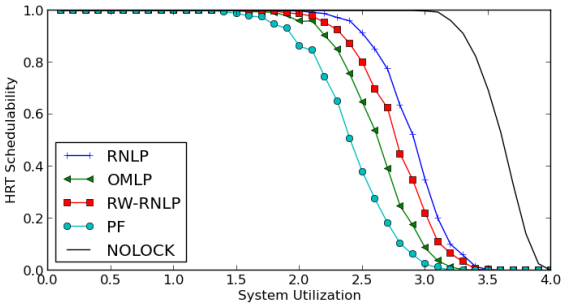

Figure 37: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

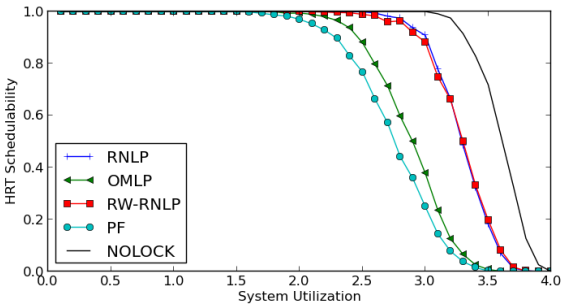

Figure 38: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

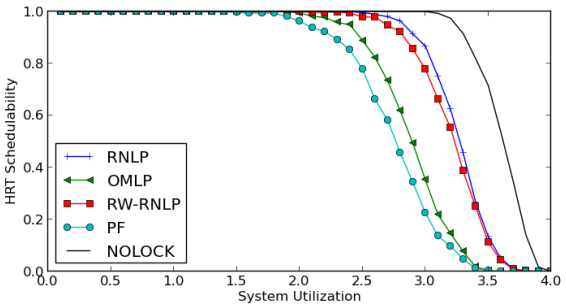

Figure 39: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

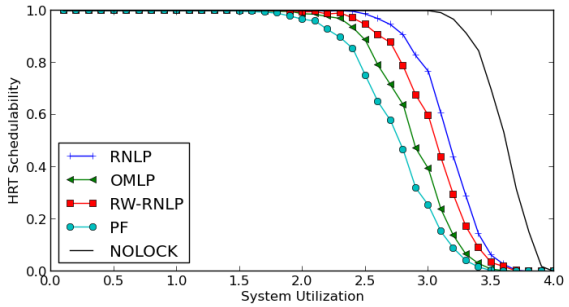

Figure 40: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

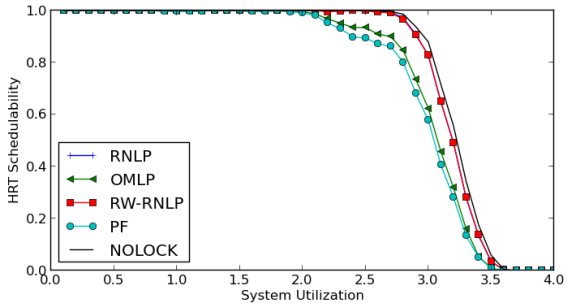

Figure 41: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

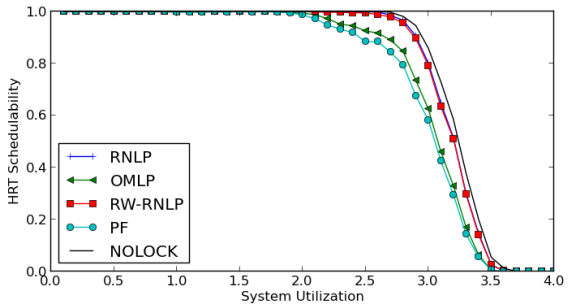

Figure 42: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

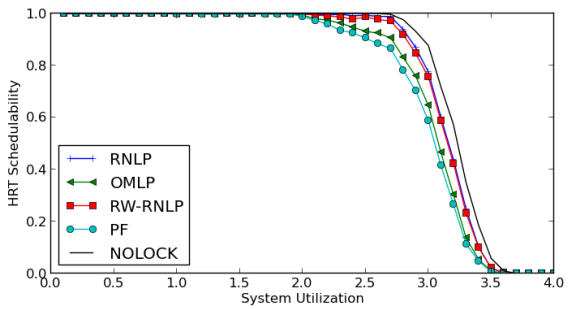

Figure 43: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

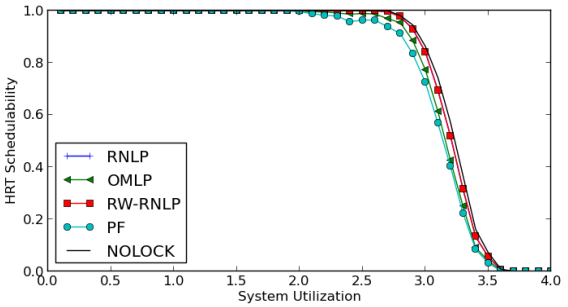

Figure 44: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

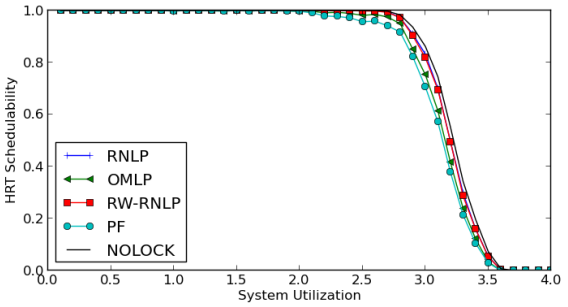

Figure 45: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

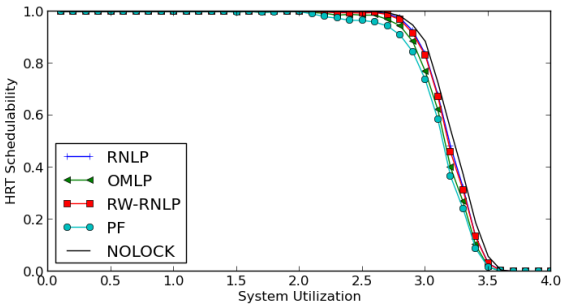

Figure 46: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

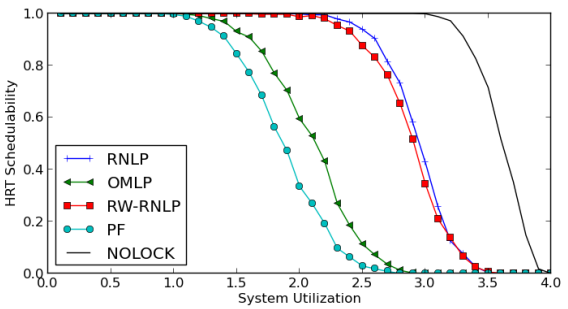

Figure 47: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

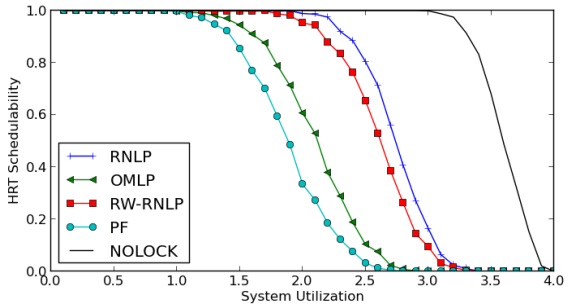

Figure 48: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

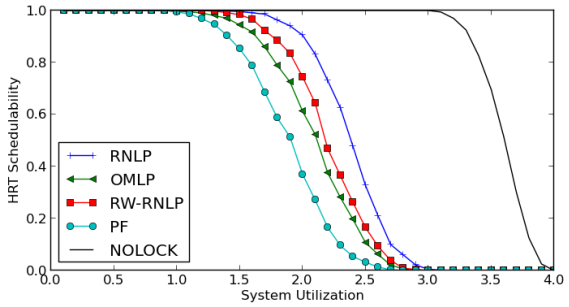

Figure 49: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

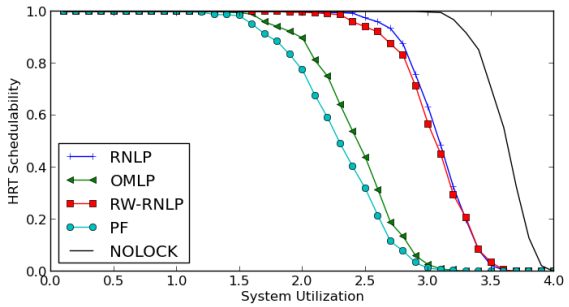

Figure 50: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

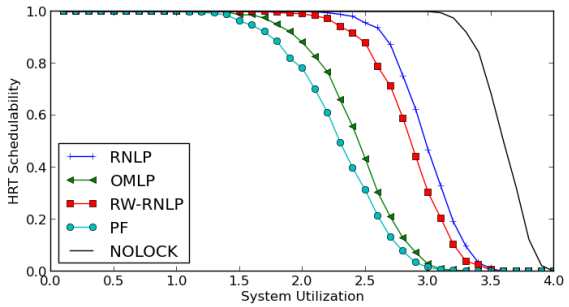

Figure 51: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

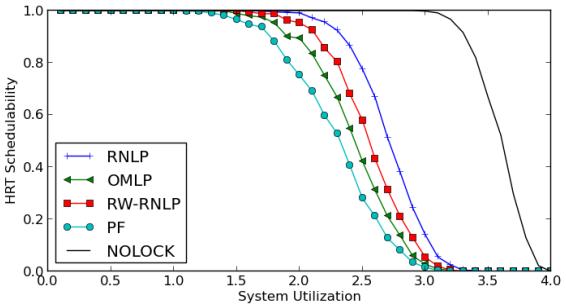

Figure 52: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

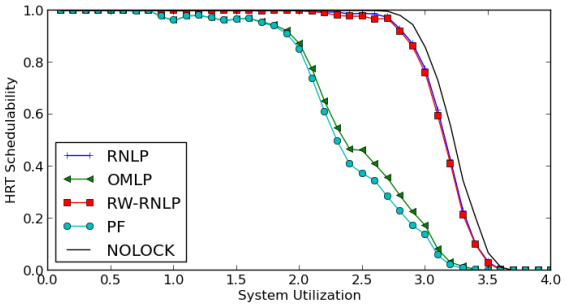

Figure 53: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

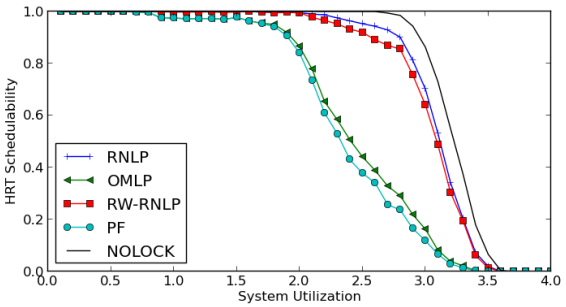

Figure 54: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

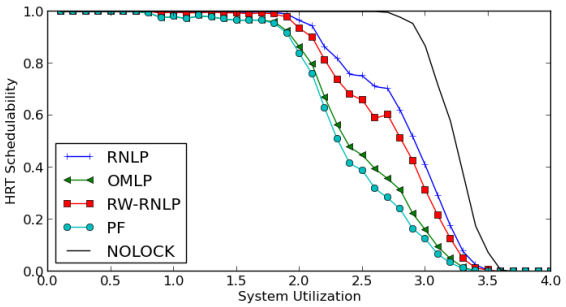

Figure 55: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

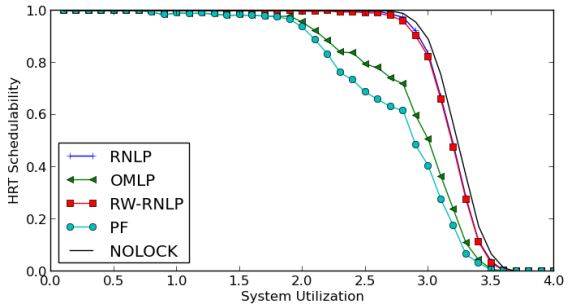

Figure 56: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

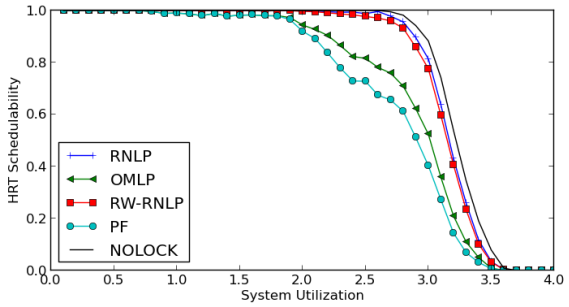

Figure 57: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

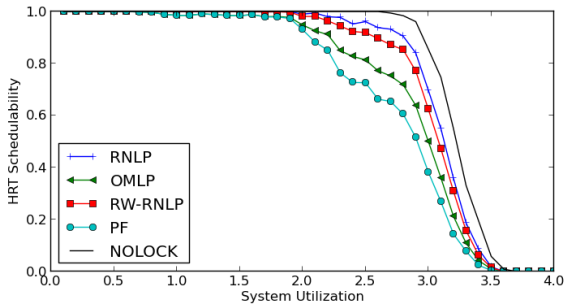

Figure 58: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

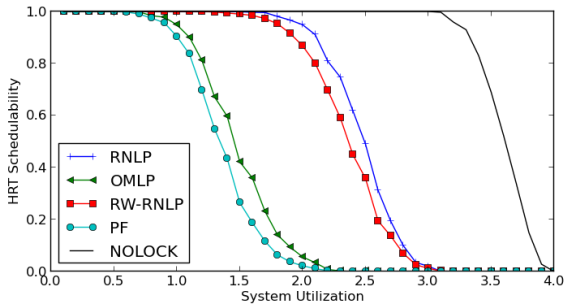

Figure 59: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

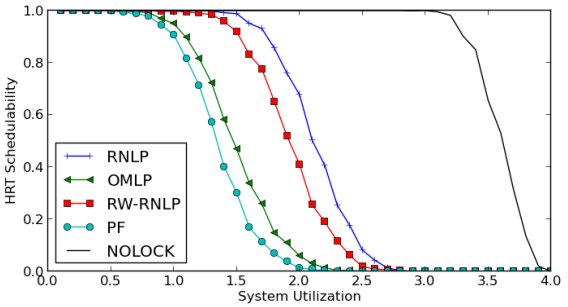

Figure 60: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

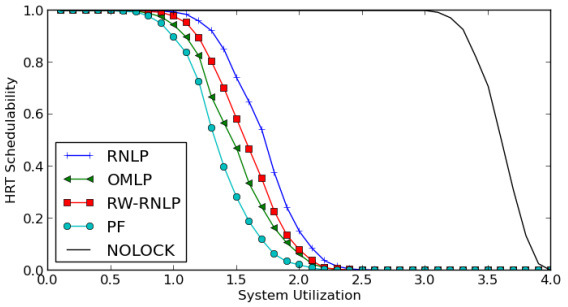

Figure 61: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

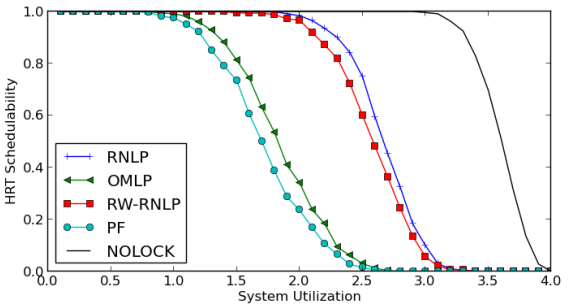

Figure 62: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

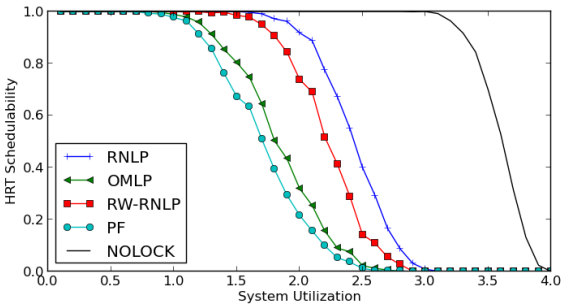

Figure 63: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

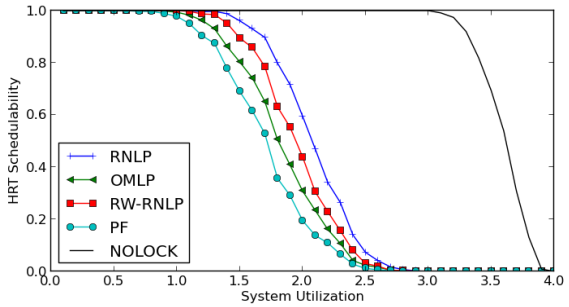

Figure 64: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

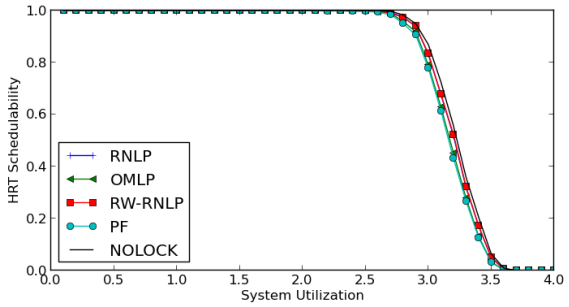

Figure 65: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

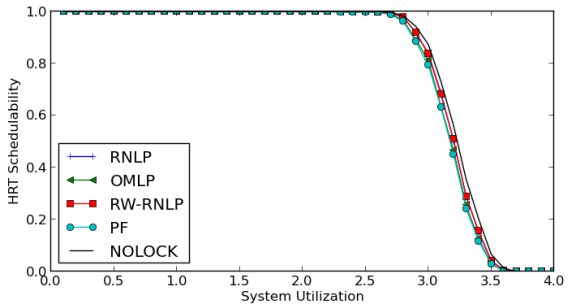

Figure 66: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

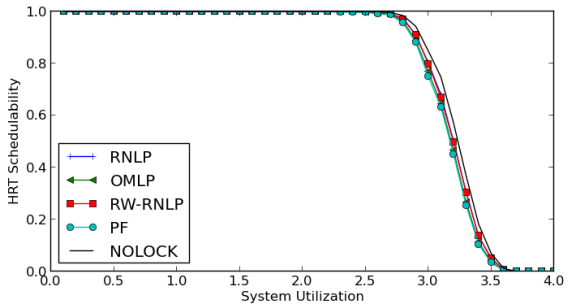

Figure 67: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

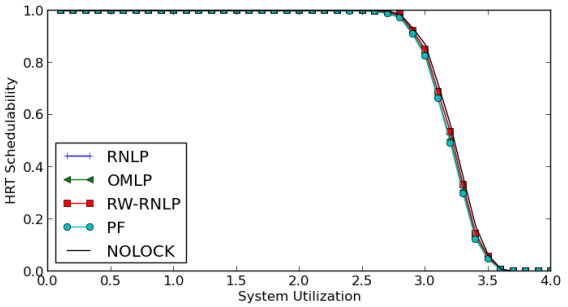

Figure 68: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

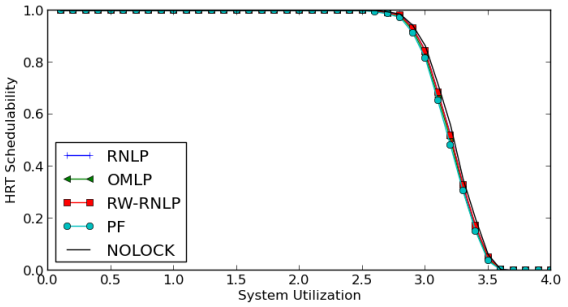

Figure 69: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

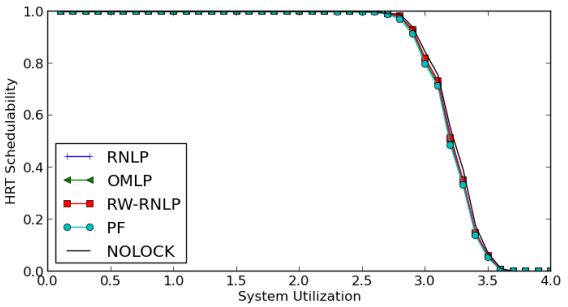

Figure 70: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

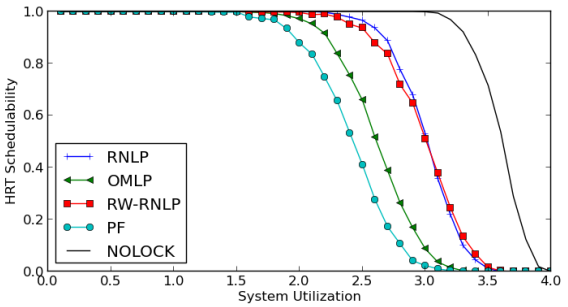

Figure 71: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

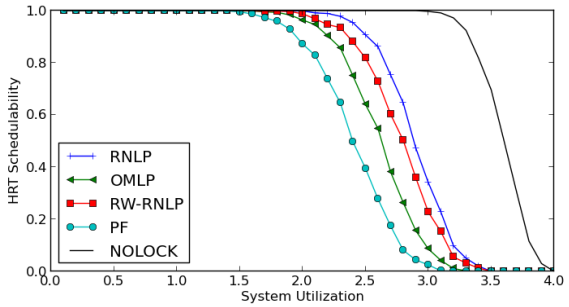

Figure 72: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

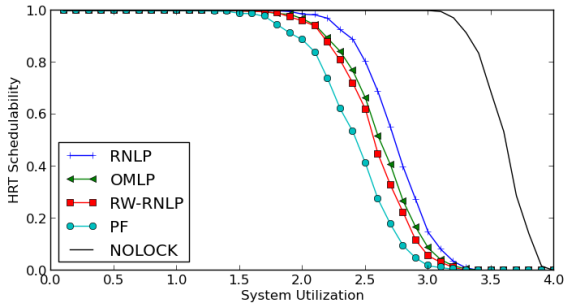

Figure 73: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

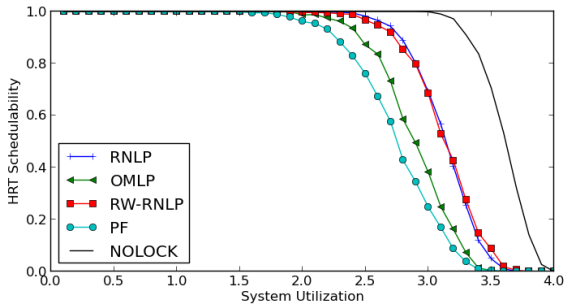

Figure 74: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

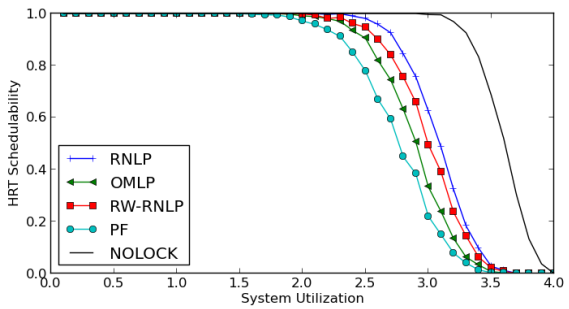

Figure 75: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

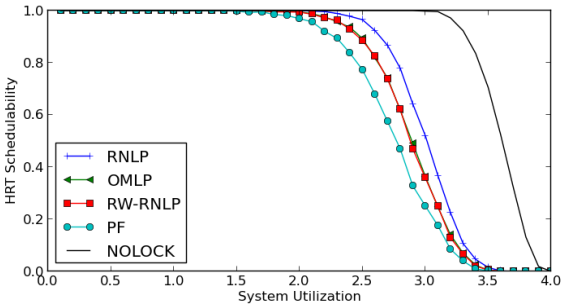

Figure 76: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

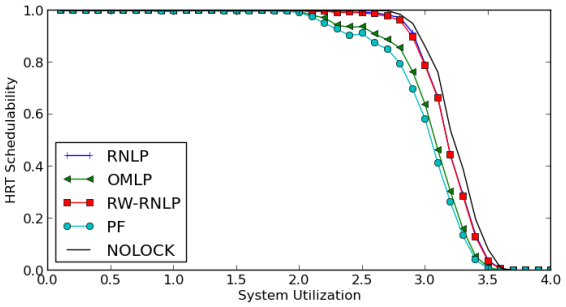

Figure 77: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

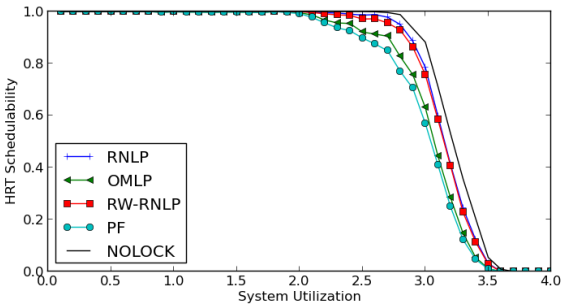

Figure 78: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

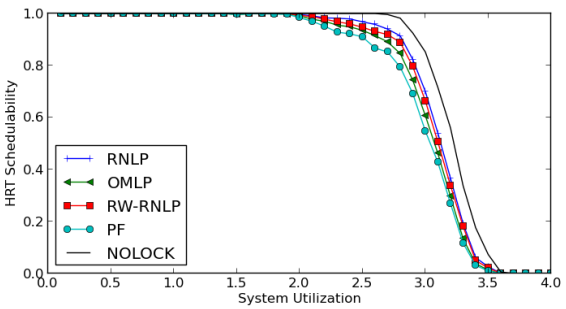

Figure 79: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

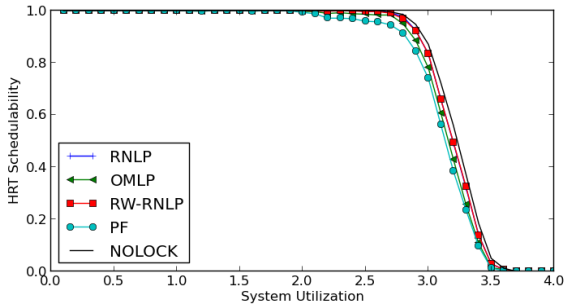

Figure 80: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

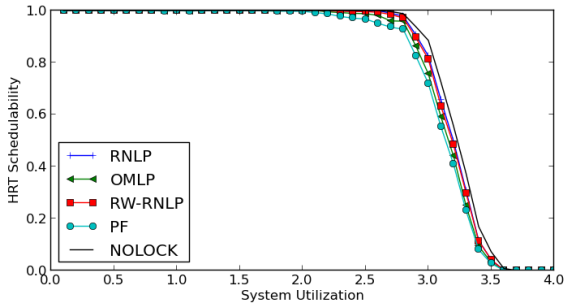

Figure 81: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

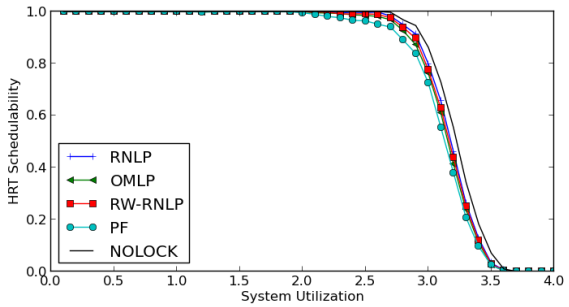

Figure 82: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

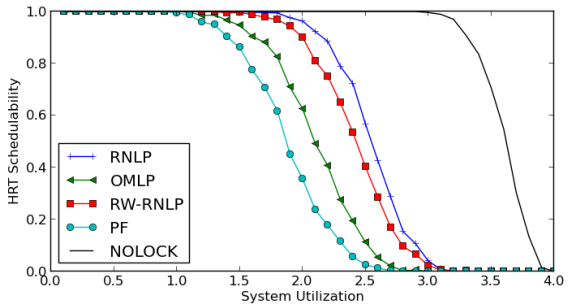

Figure 83: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

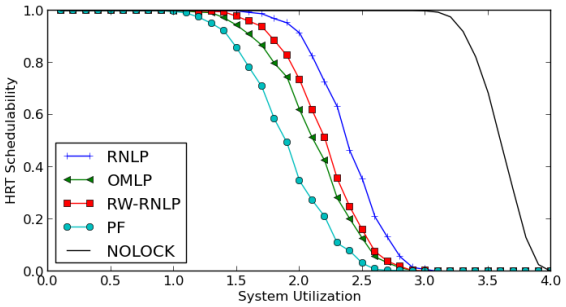

Figure 84: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

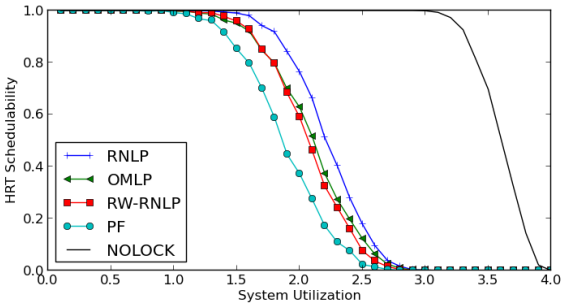

Figure 85: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

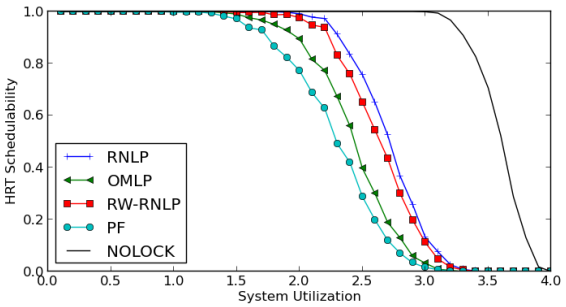

Figure 86: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

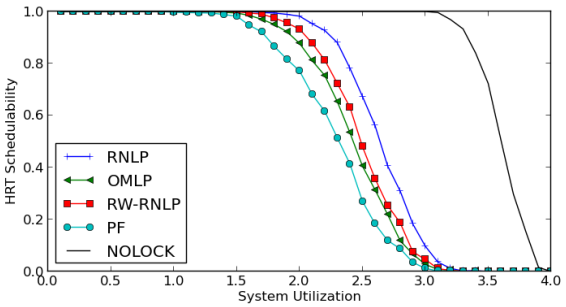

Figure 87: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

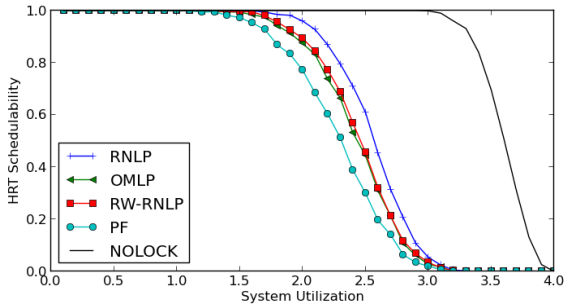

Figure 88: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

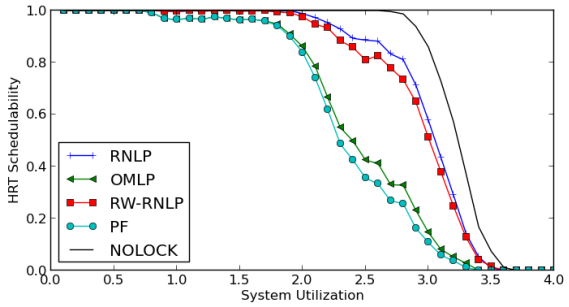

Figure 89: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

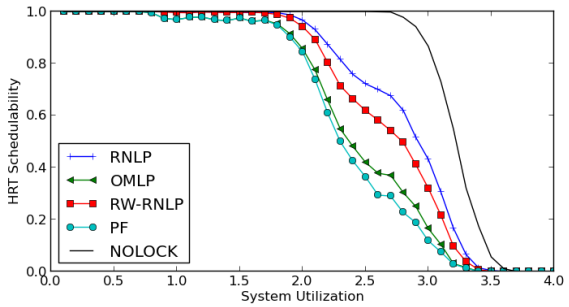

Figure 90: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

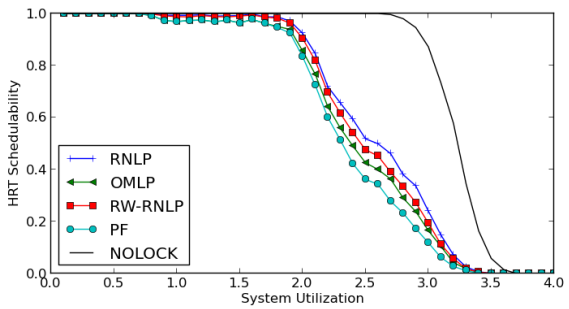

Figure 91: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

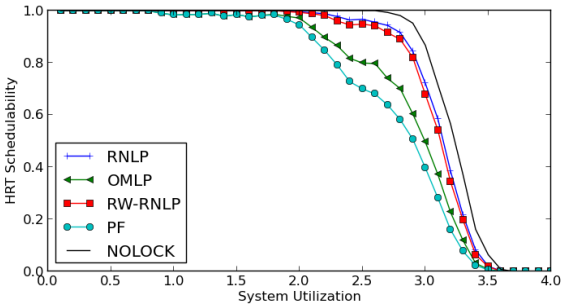

Figure 92: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

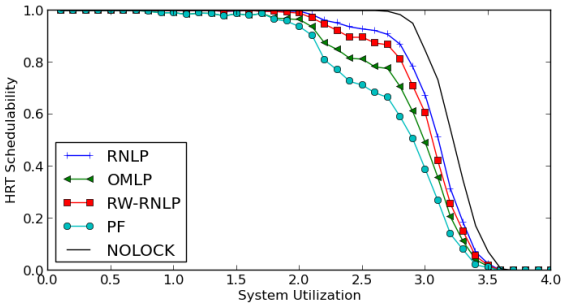

Figure 93: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

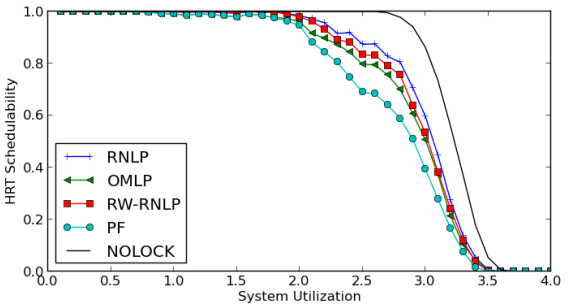

Figure 94: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

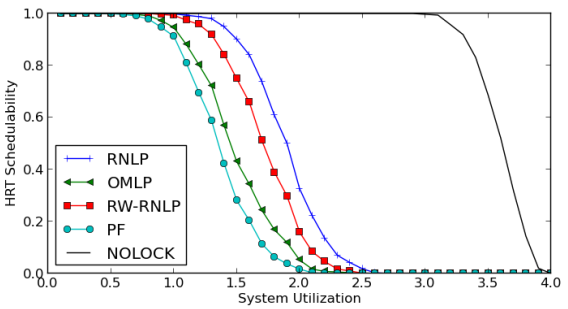

Figure 95: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

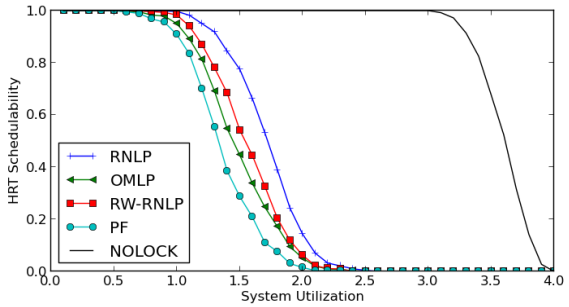

Figure 96: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

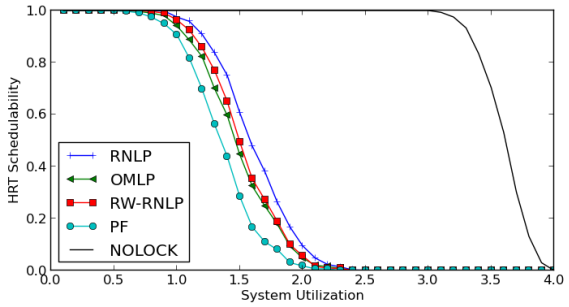

Figure 97: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

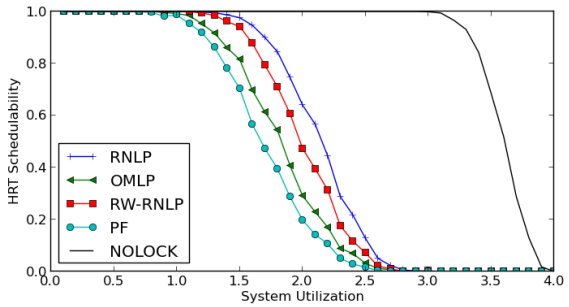

Figure 98: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

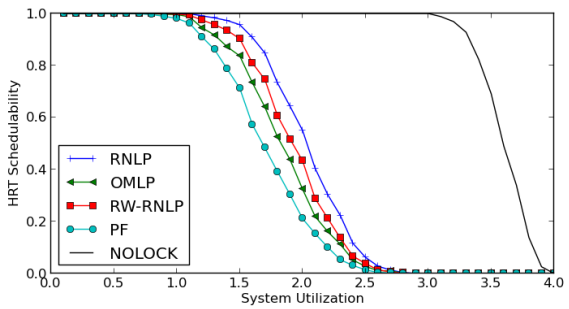

Figure 99: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

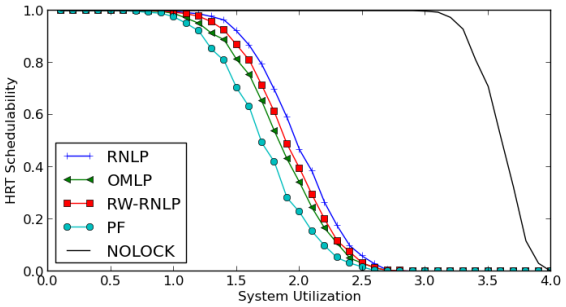

Figure 100: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

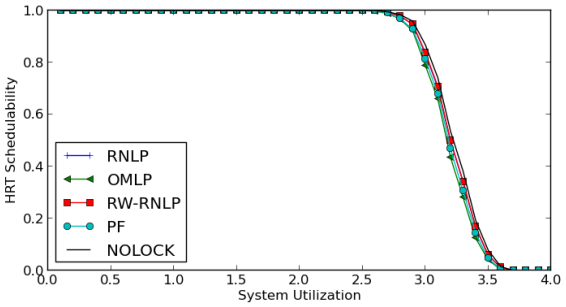

Figure 101: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

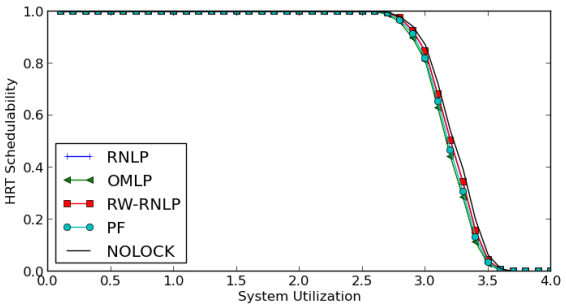

Figure 102: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

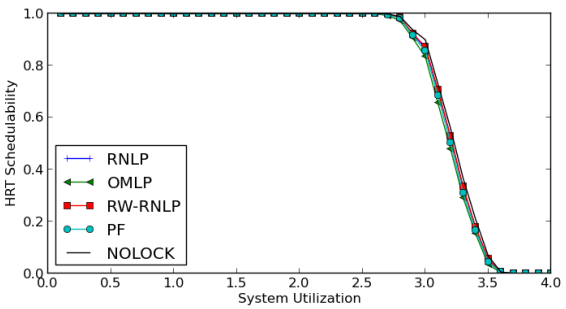

Figure 103: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

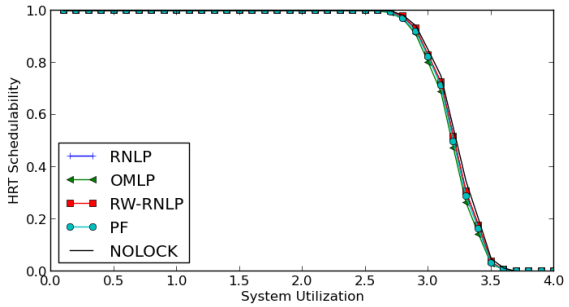

Figure 104: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

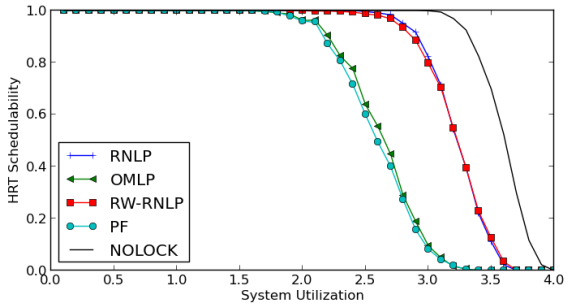

Figure 105: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

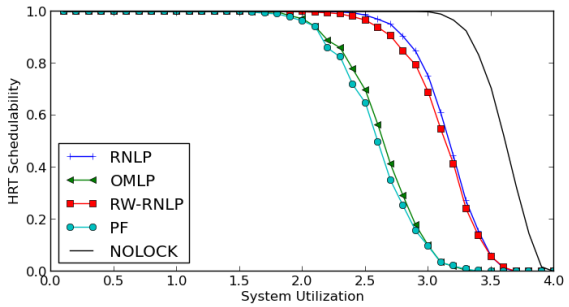

Figure 106: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

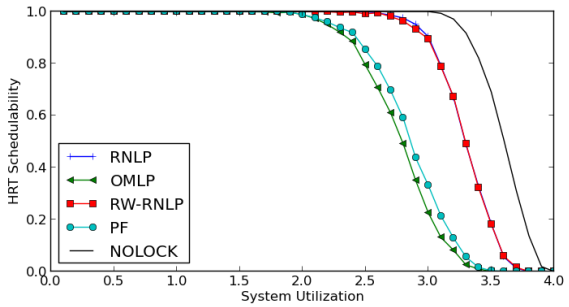

Figure 107: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

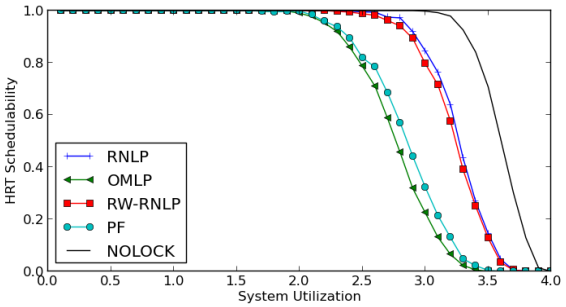

Figure 108: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

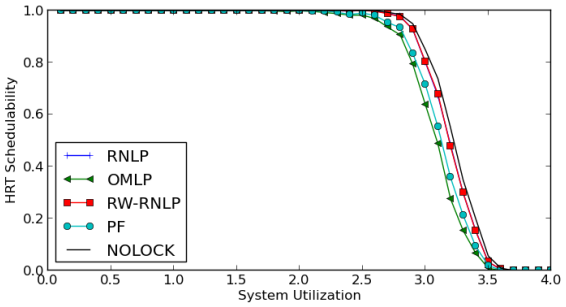

Figure 109: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

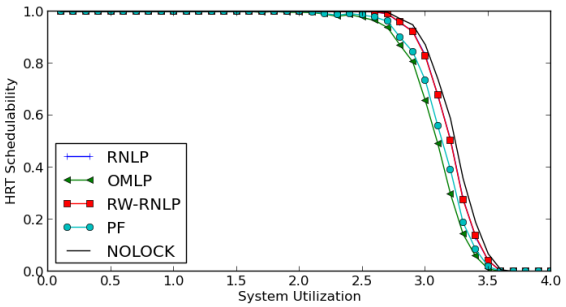

Figure 110: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

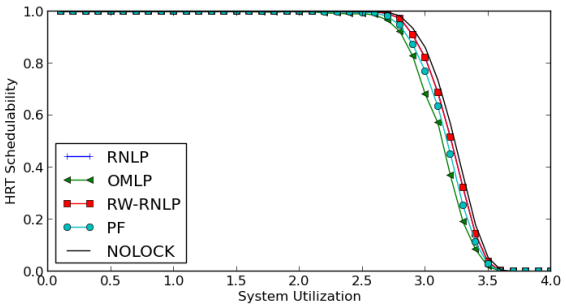

Figure 111: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

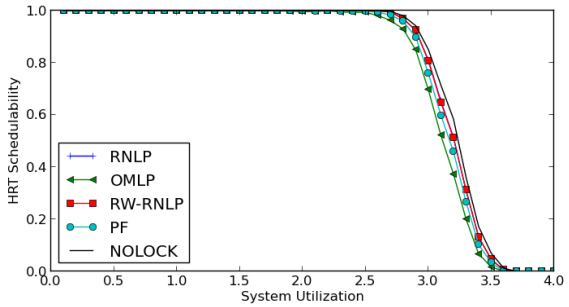

Figure 112: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

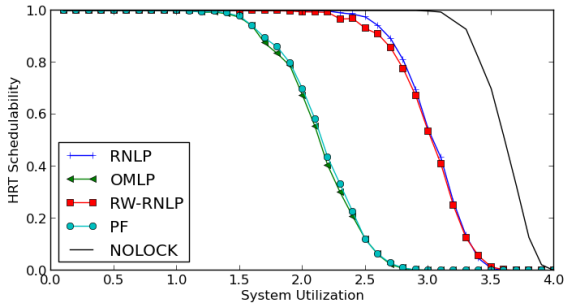

Figure 113: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

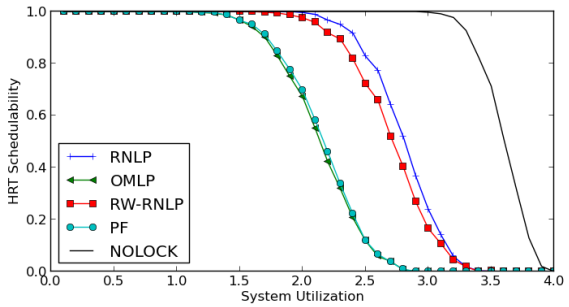

Figure 114: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

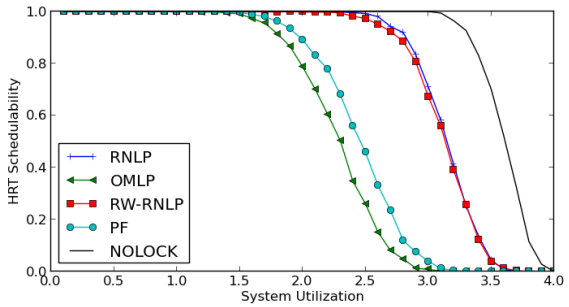

Figure 115: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

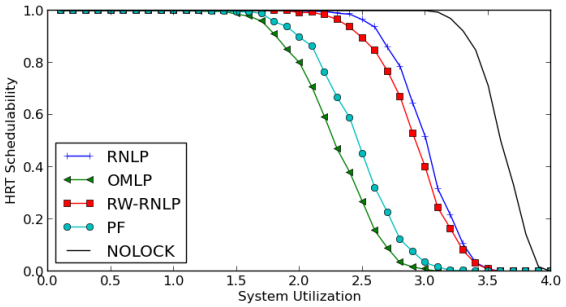

Figure 116: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

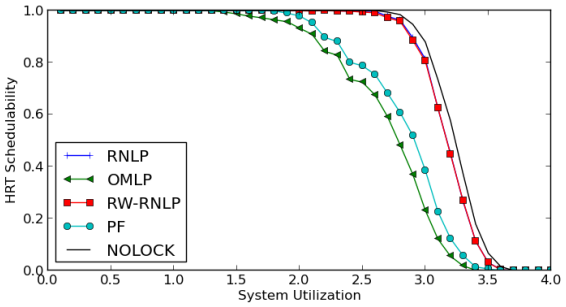

Figure 117: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

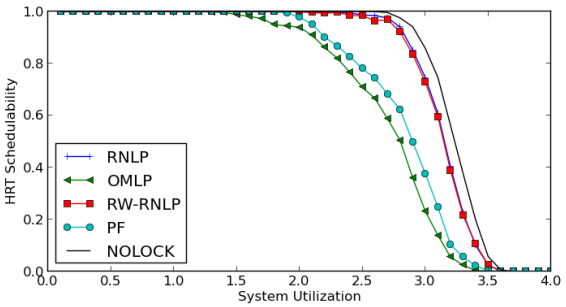

Figure 118: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

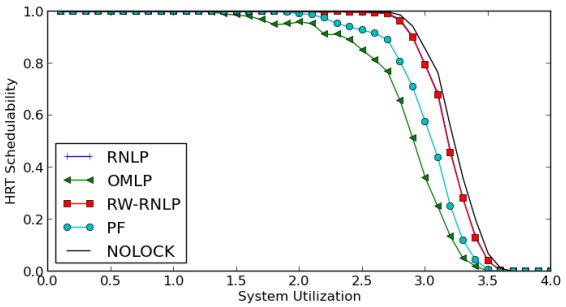

Figure 119: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

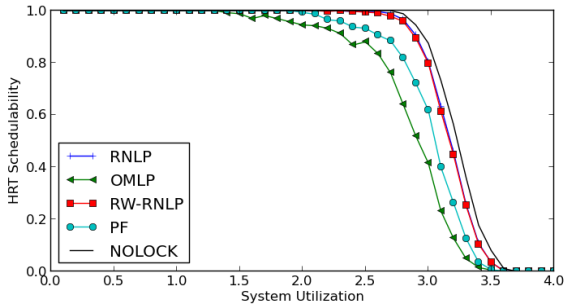

Figure 120: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

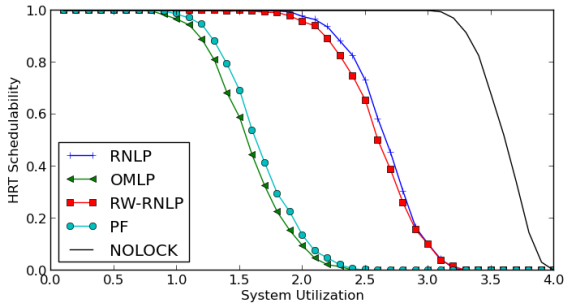

Figure 121: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

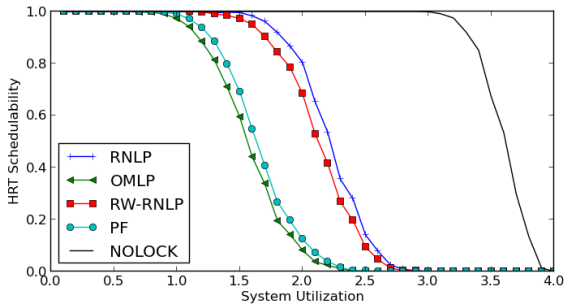

Figure 122: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

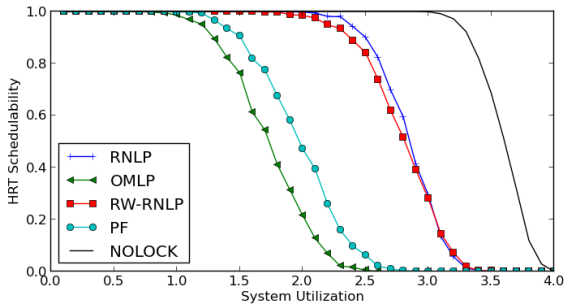

Figure 123: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

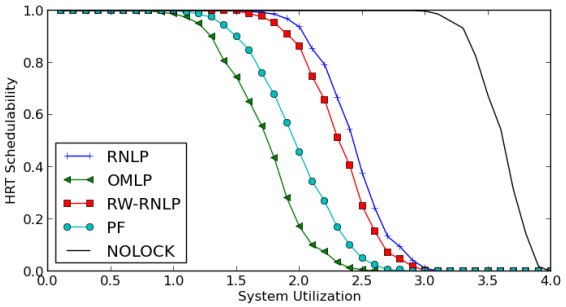

Figure 124: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

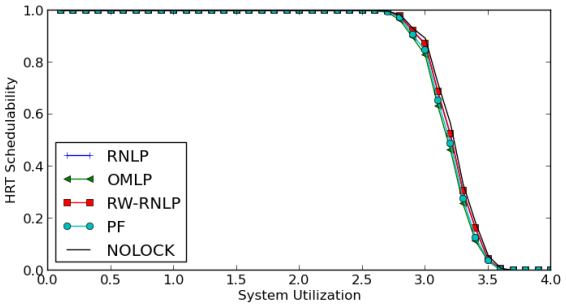

Figure 125: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

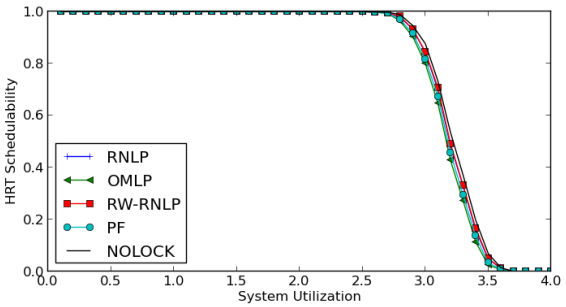

Figure 126: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

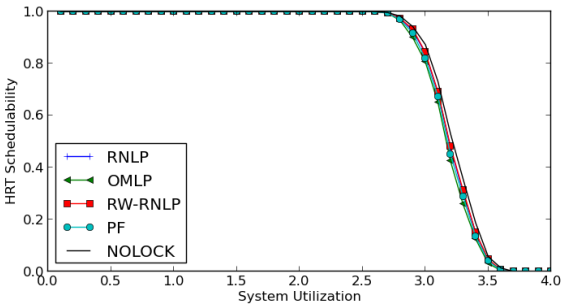

Figure 127: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

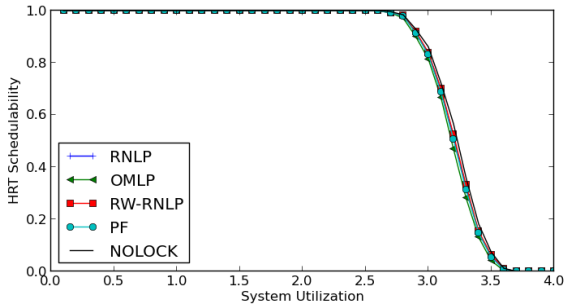

Figure 128: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

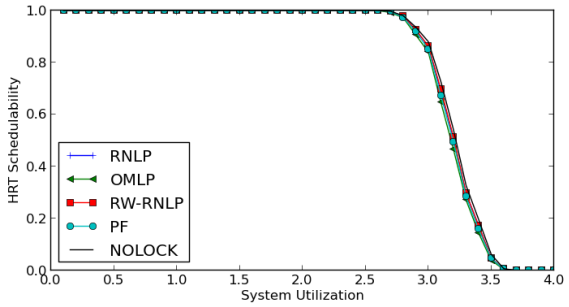

Figure 129: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

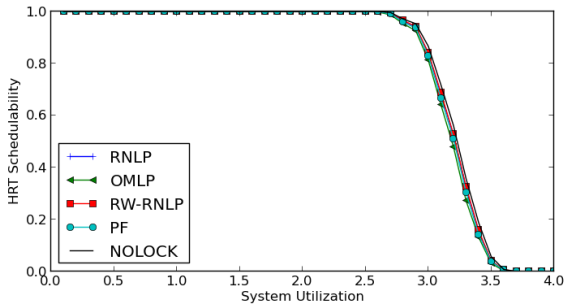

Figure 130: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

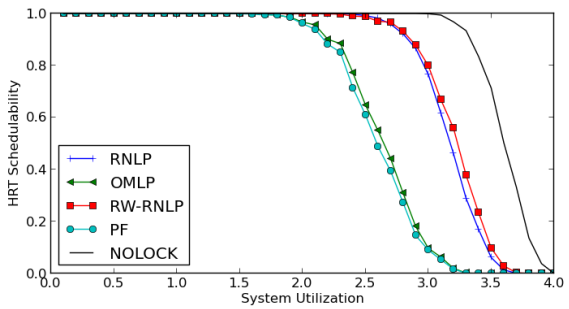

Figure 131: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

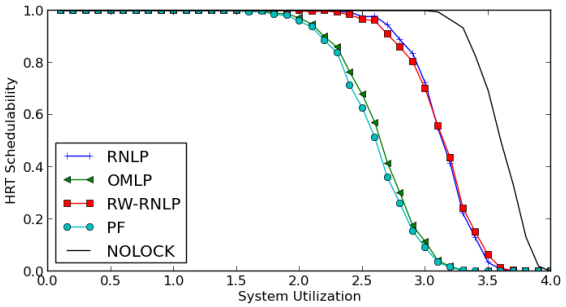

Figure 132: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

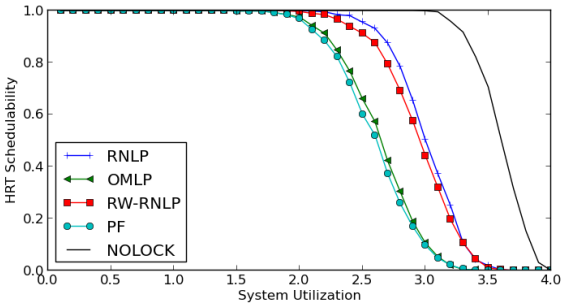

Figure 133: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

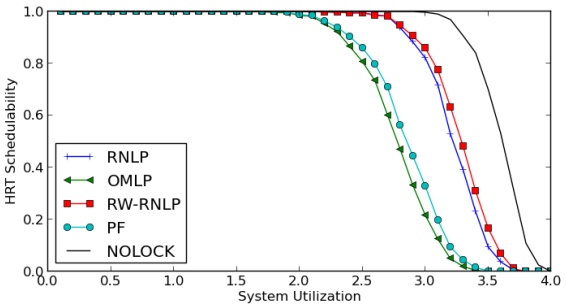

Figure 134: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

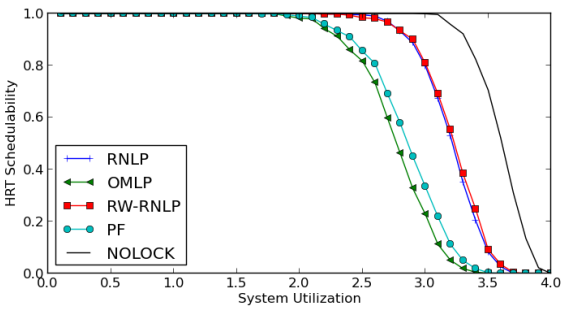

Figure 135: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

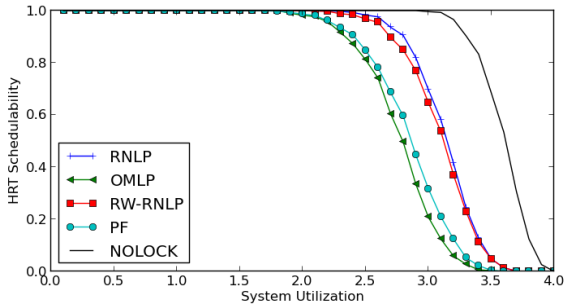

Figure 136: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

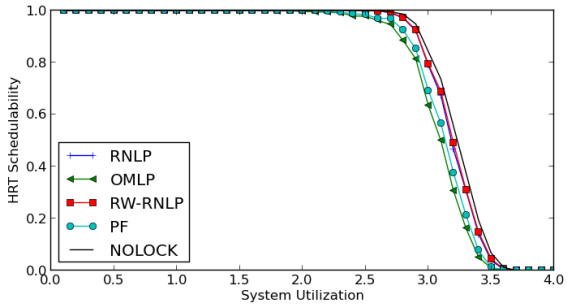

Figure 137: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

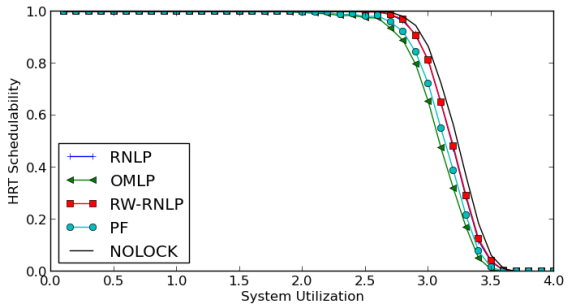

Figure 138: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

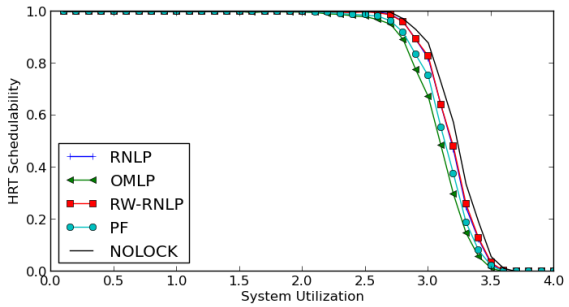

Figure 139: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

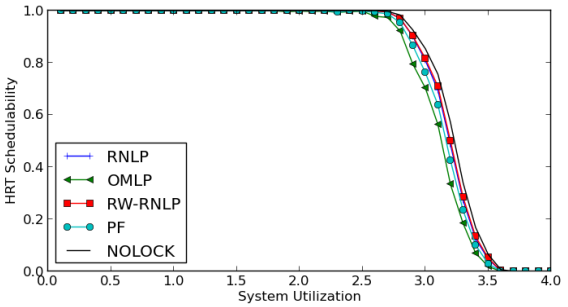

Figure 140: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

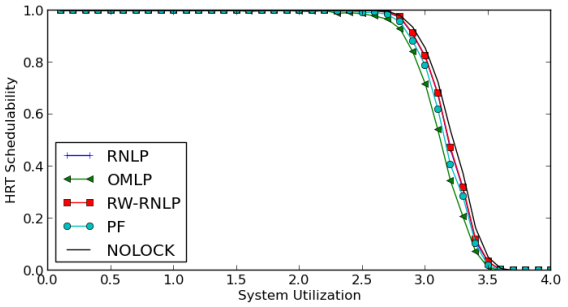

Figure 141: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

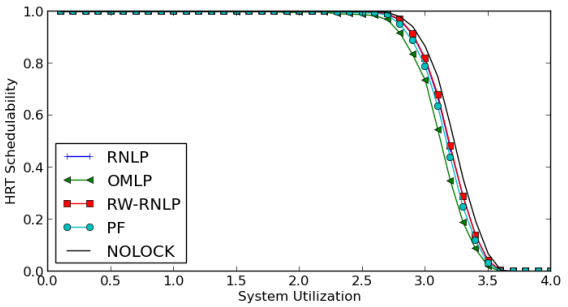

Figure 142: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

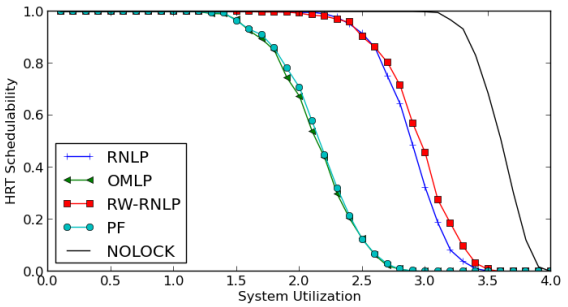

Figure 143: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

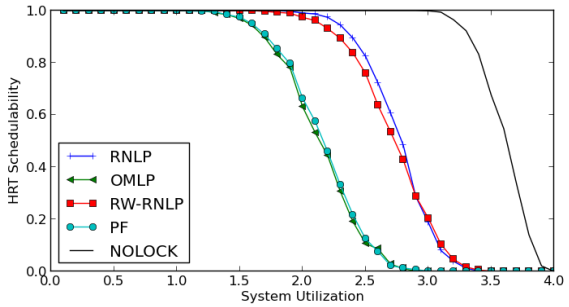

Figure 144: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

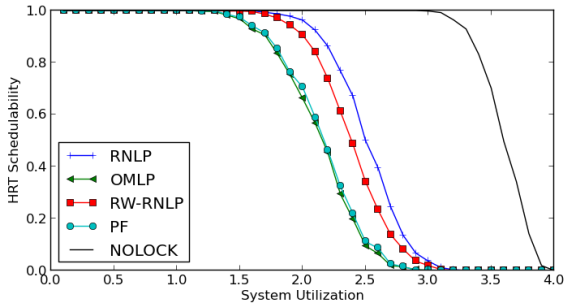

Figure 145: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

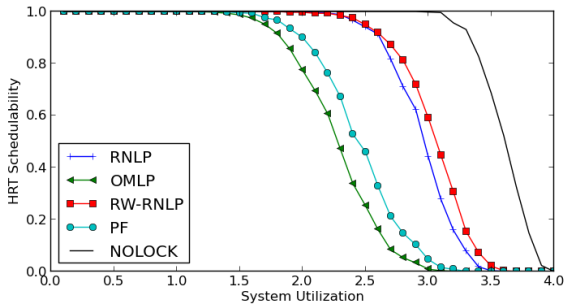

Figure 146: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

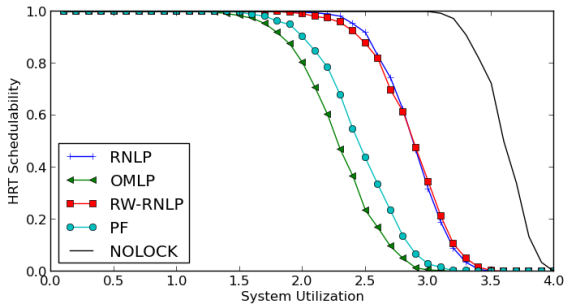

Figure 147: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

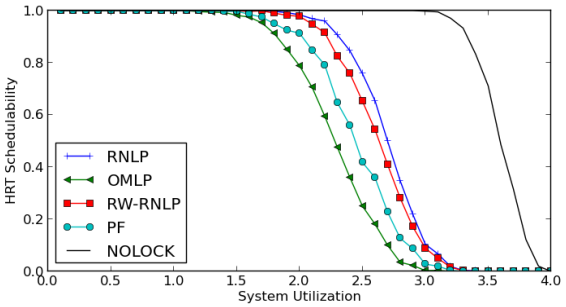

Figure 148: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

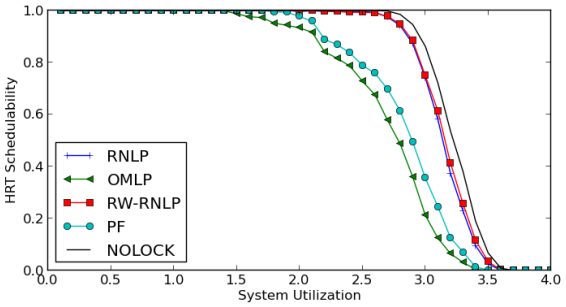

Figure 149: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

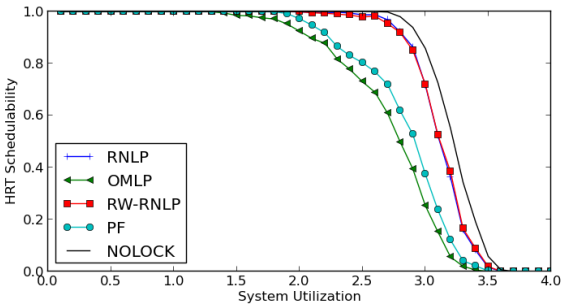

Figure 150: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

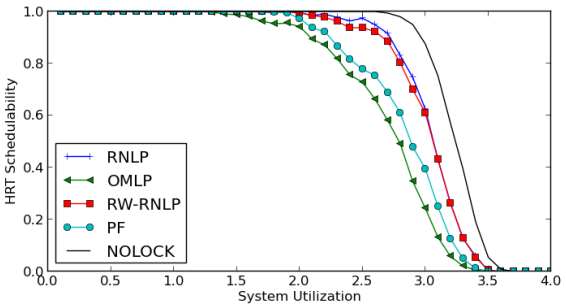

Figure 151: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

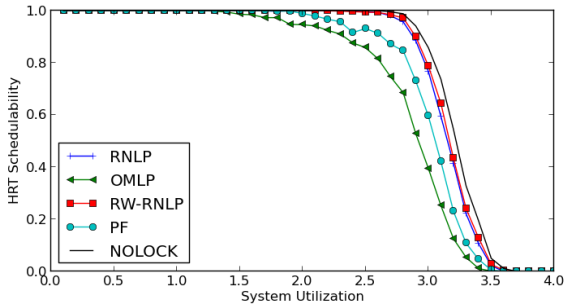

Figure 152: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

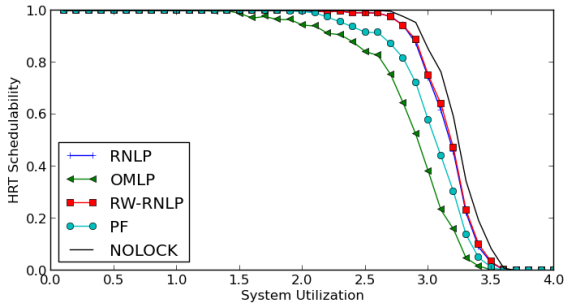

Figure 153: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

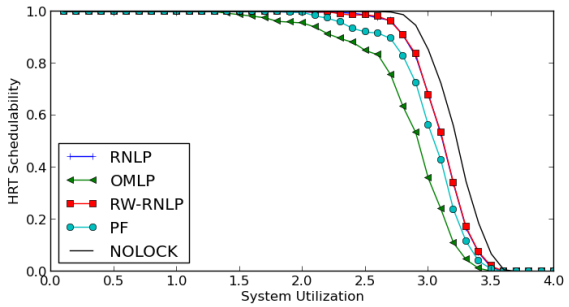

Figure 154: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

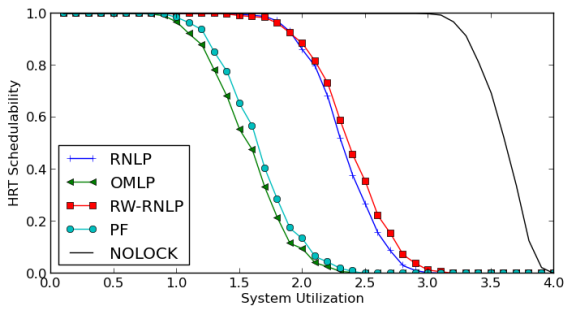

Figure 155: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

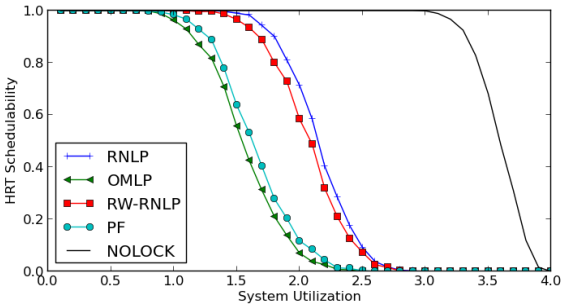

Figure 156: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

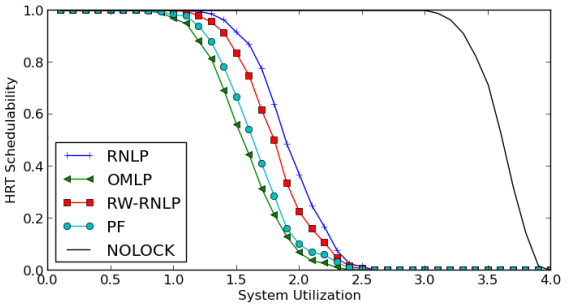

Figure 157: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

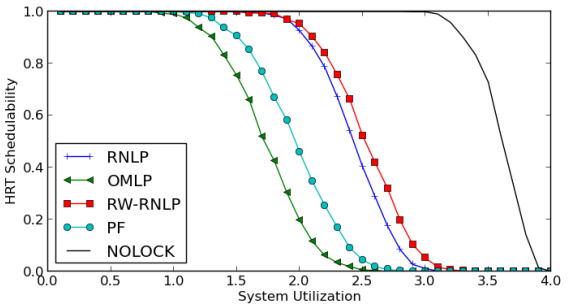

Figure 158: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

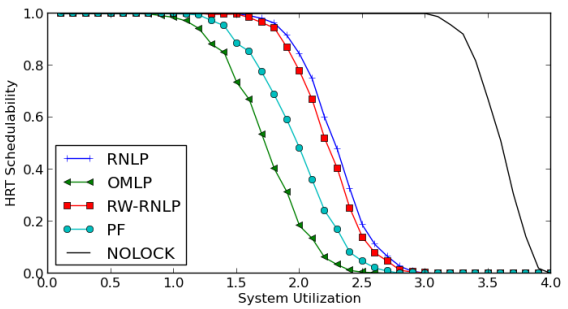

Figure 159: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

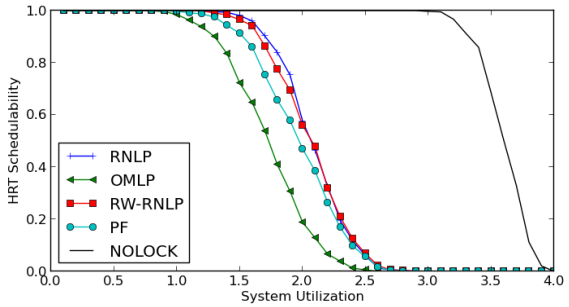

Figure 160: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

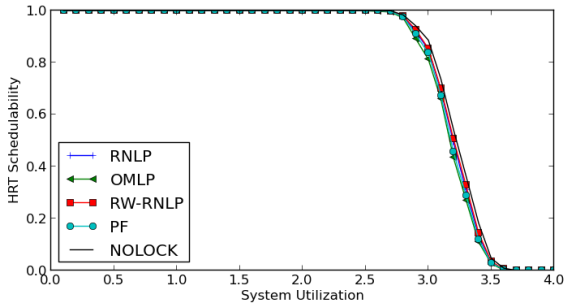

Figure 161: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

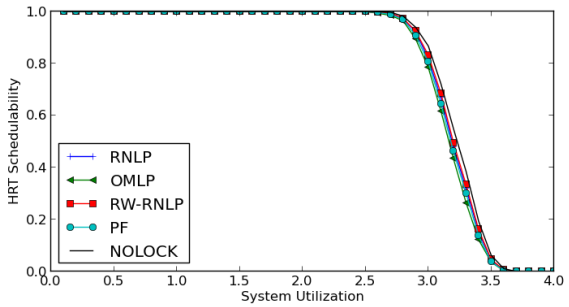

Figure 162: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

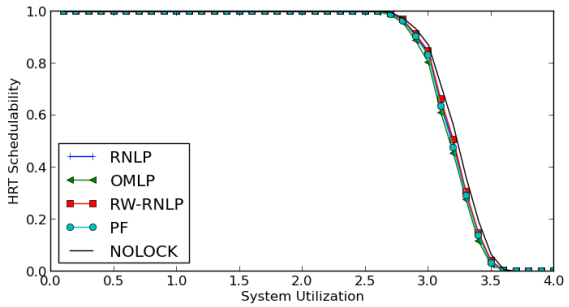

Figure 163: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

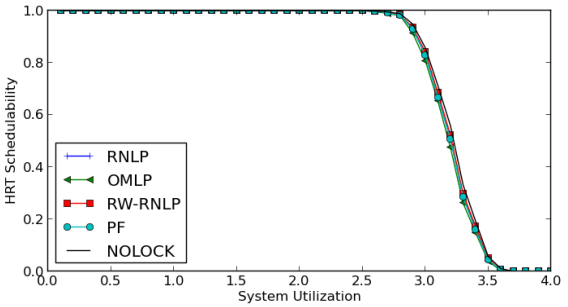

Figure 164: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

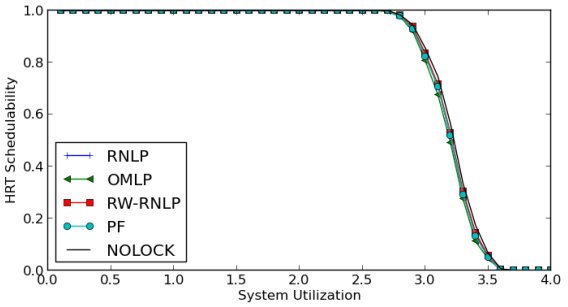

Figure 165: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

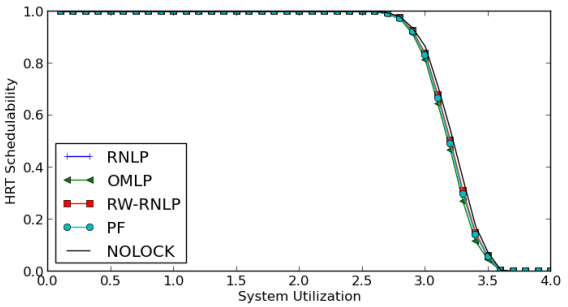

Figure 166: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

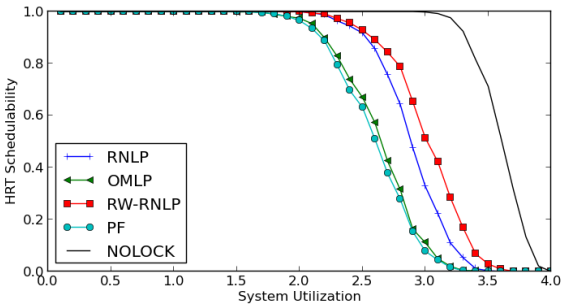

Figure 167: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

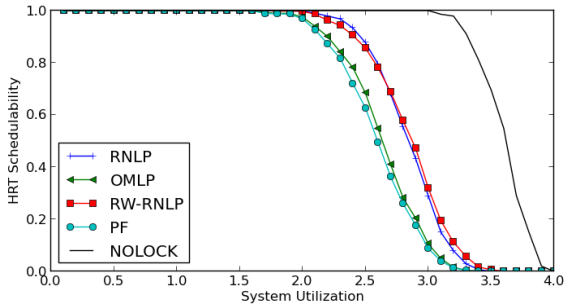

Figure 168: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

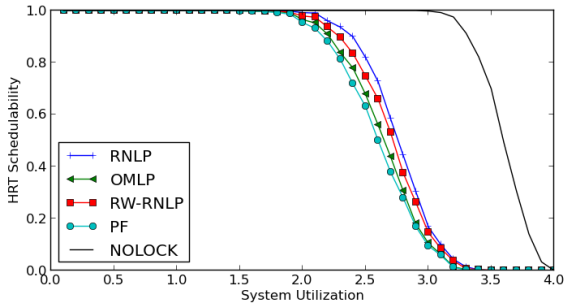

Figure 169: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

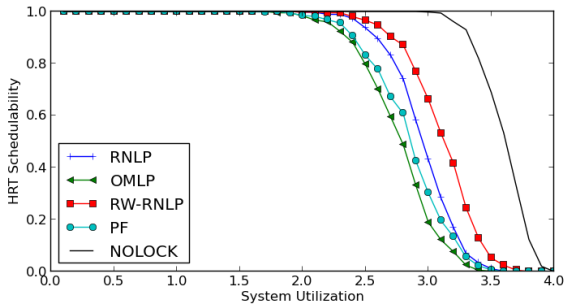

Figure 170: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

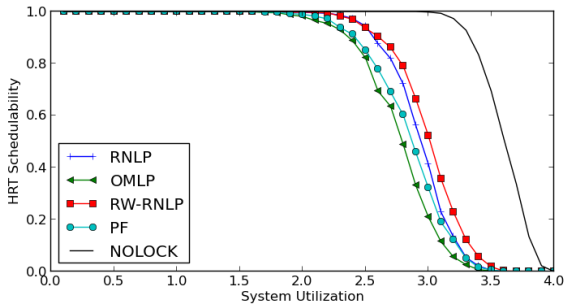

Figure 171: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

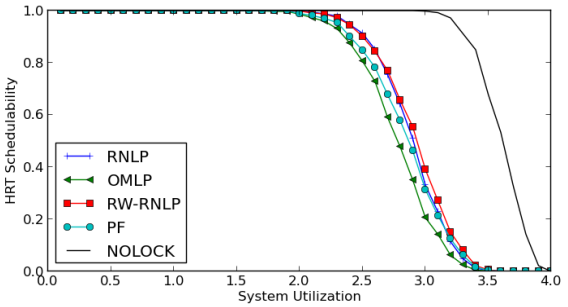

Figure 172: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

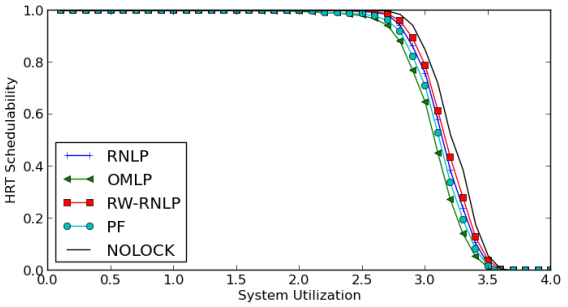

Figure 173: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

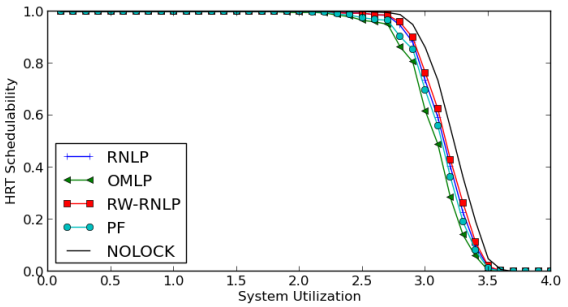

Figure 174: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

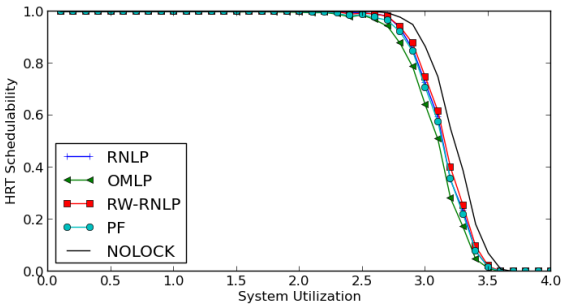

Figure 175: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

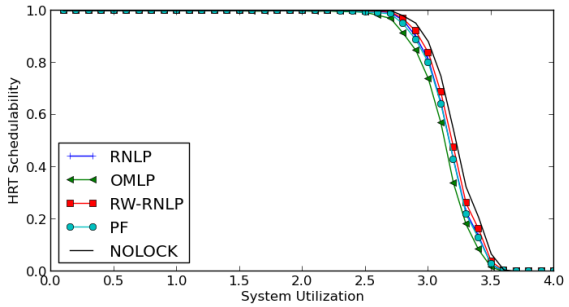

Figure 176: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

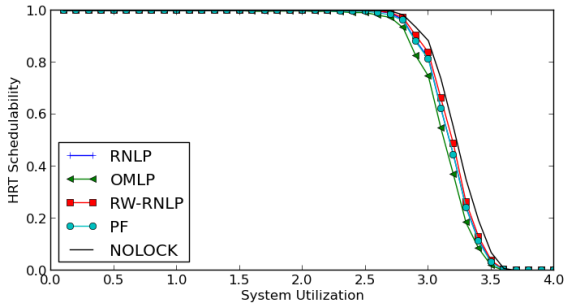

Figure 177: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

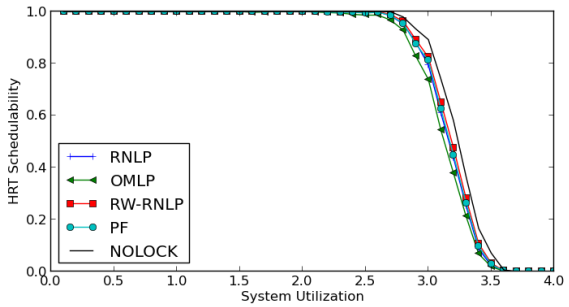

Figure 178: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

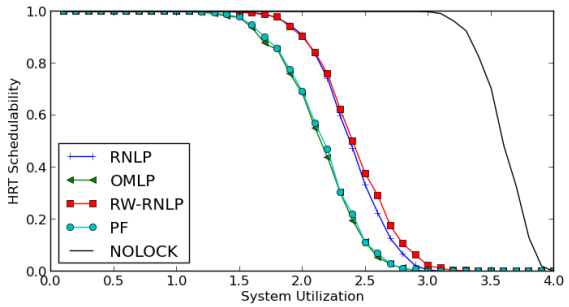

Figure 179: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

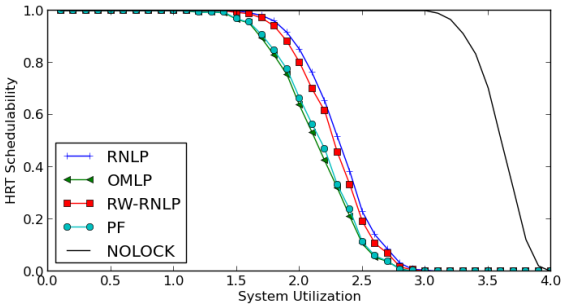

Figure 180: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

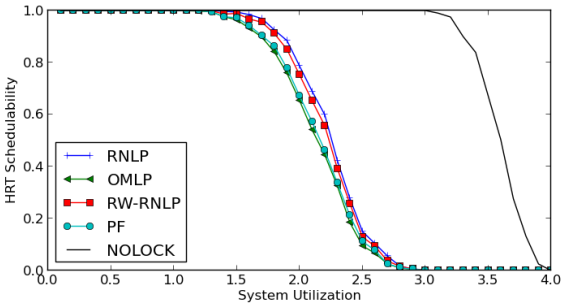

Figure 181: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

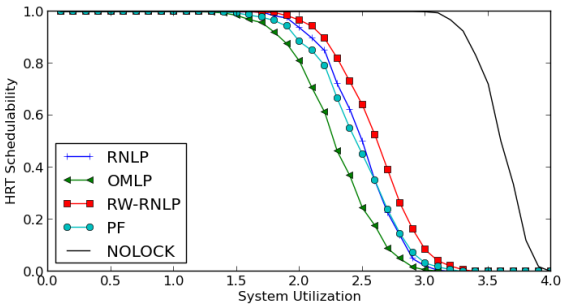

Figure 182: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

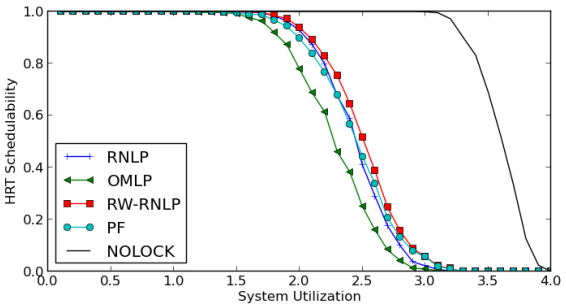

Figure 183: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

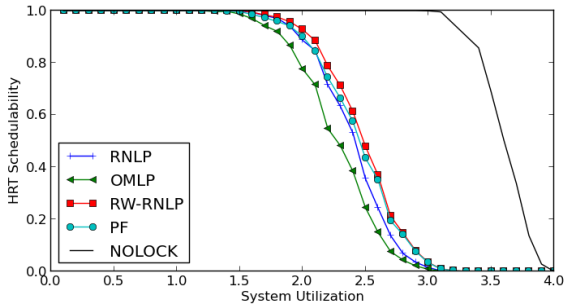

Figure 184: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

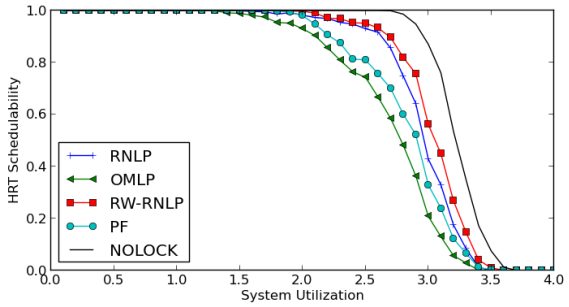

Figure 185: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

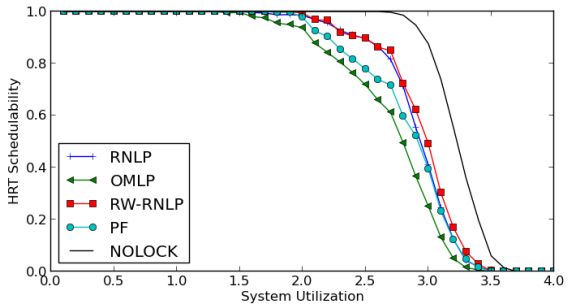

Figure 186: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

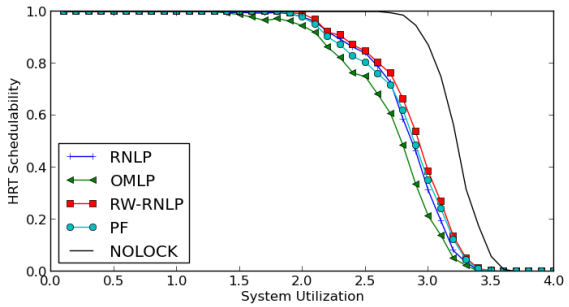

Figure 187: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

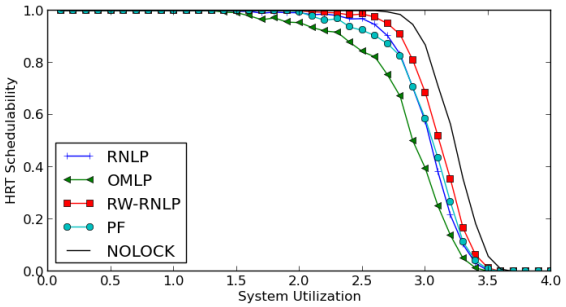

Figure 188: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

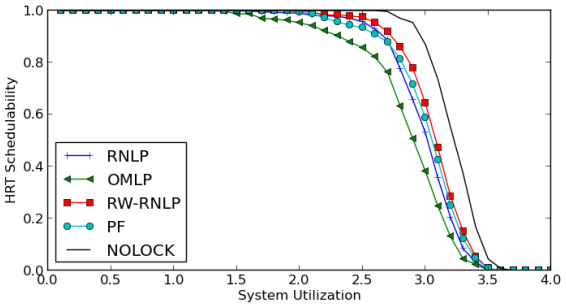

Figure 189: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

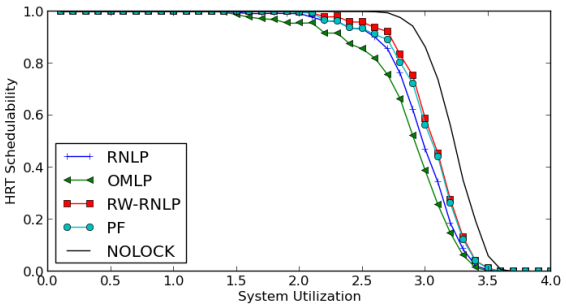

Figure 190: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

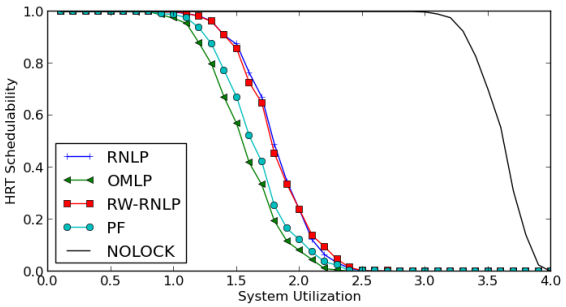

Figure 191: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

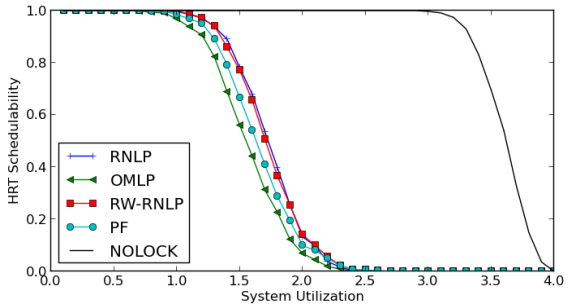

Figure 192: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

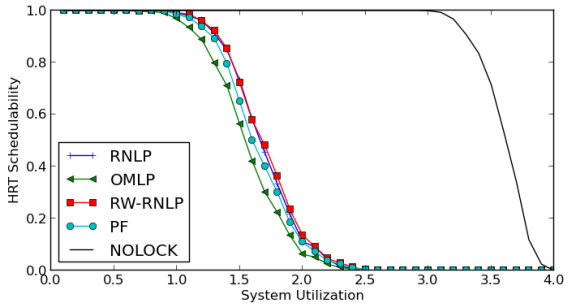

Figure 193: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

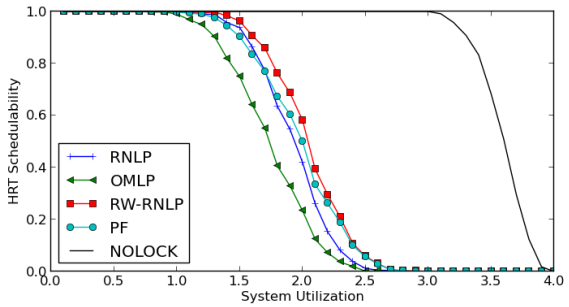

Figure 194: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

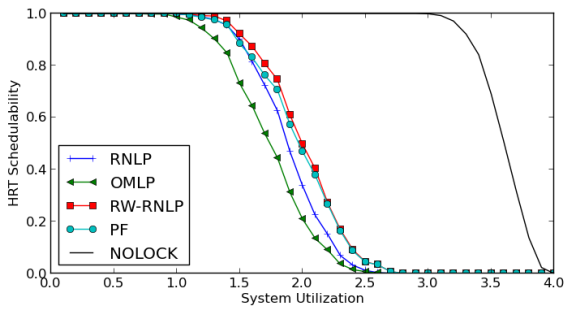

Figure 195: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

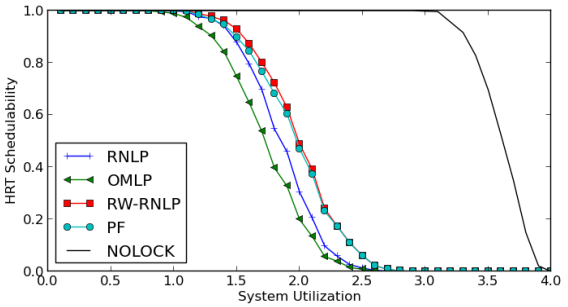

Figure 196: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

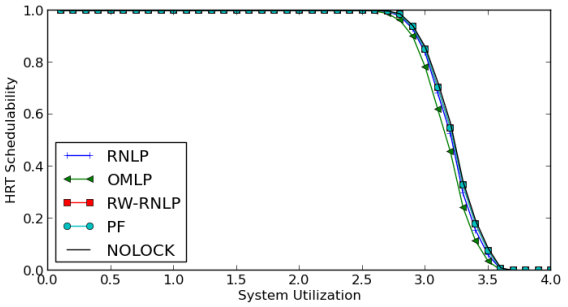

Figure 197: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

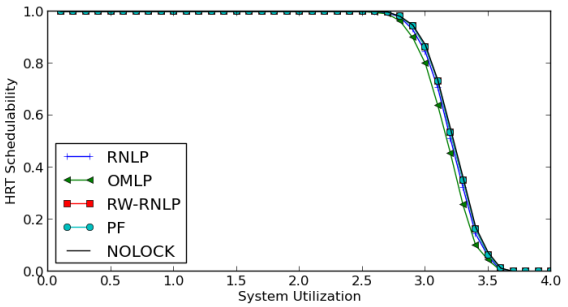

Figure 198: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

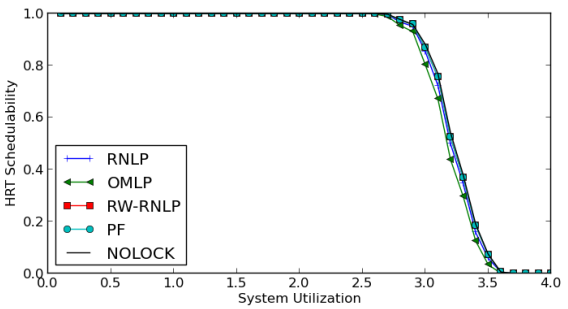

Figure 199: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

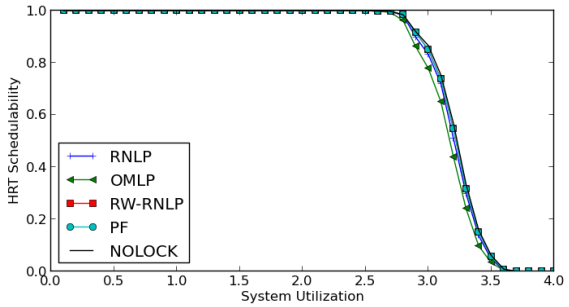

Figure 200: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

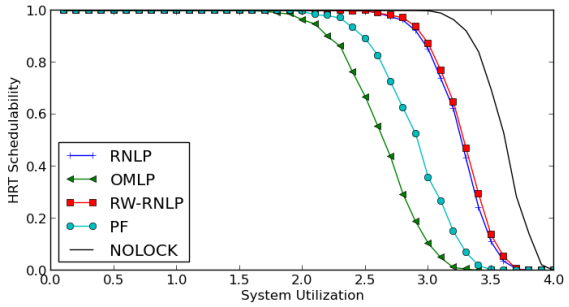

Figure 201: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

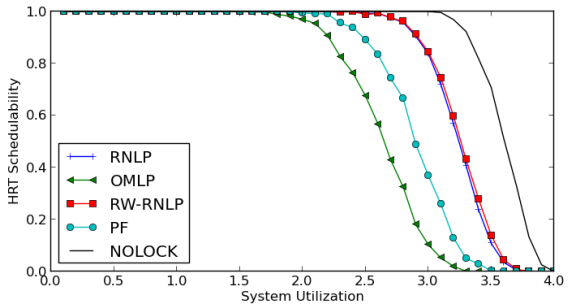

Figure 202: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

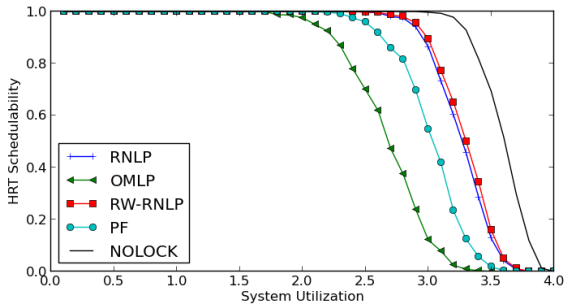

Figure 203: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

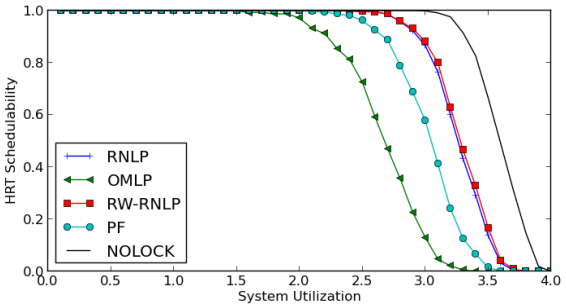

Figure 204: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

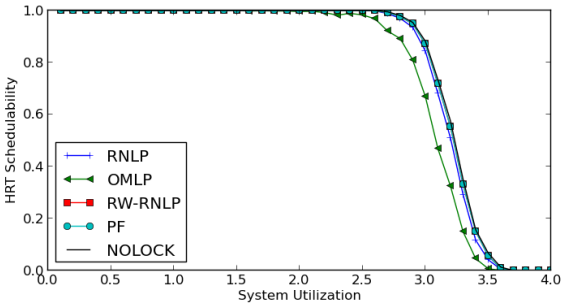

Figure 205: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

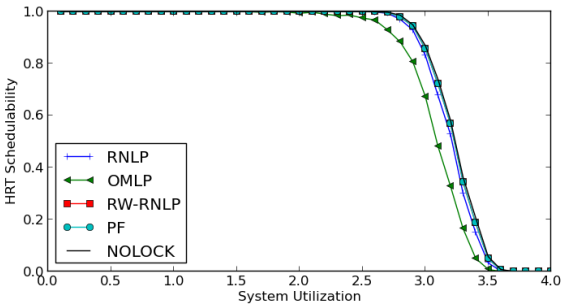

Figure 206: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

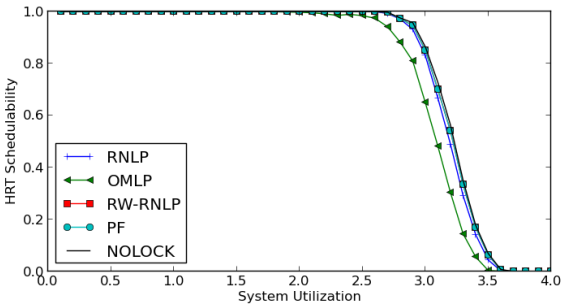

Figure 207: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

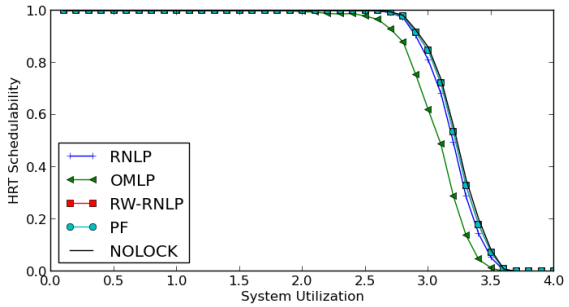

Figure 208: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

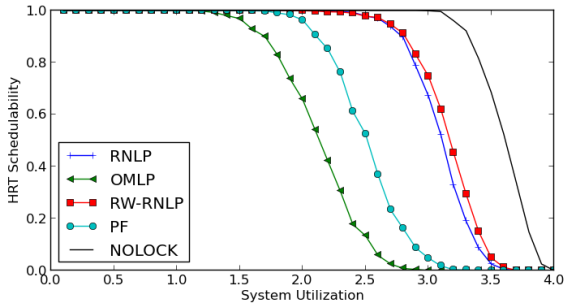

Figure 209: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

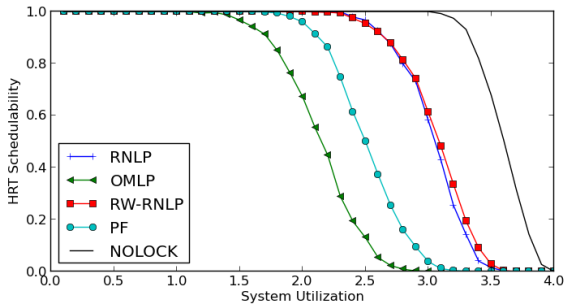

Figure 210: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

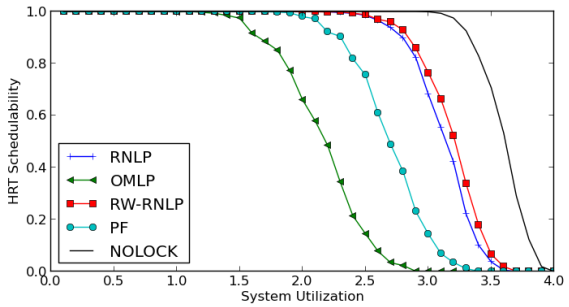

Figure 211: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

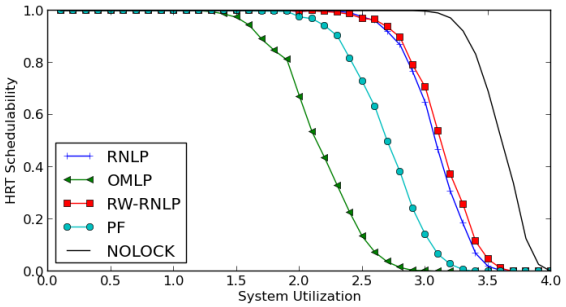

Figure 212: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

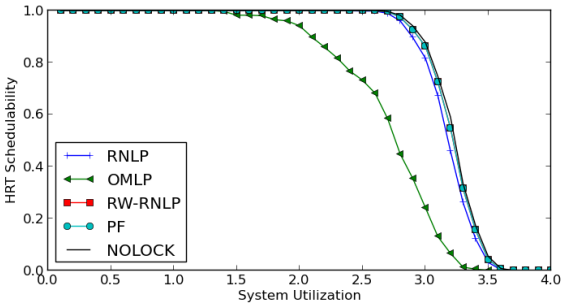

Figure 213: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

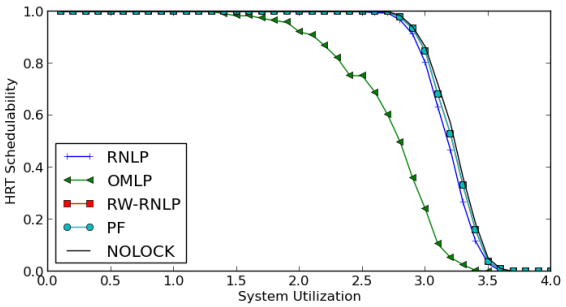

Figure 214: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

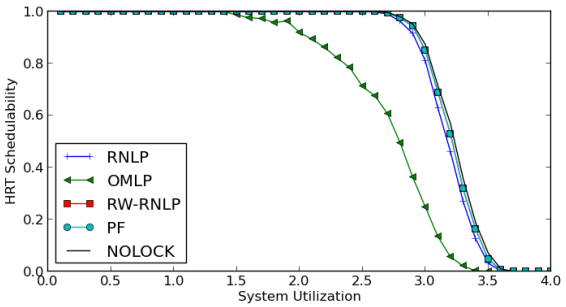

Figure 215: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

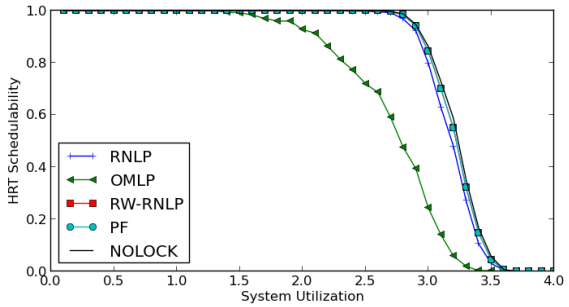

Figure 216: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

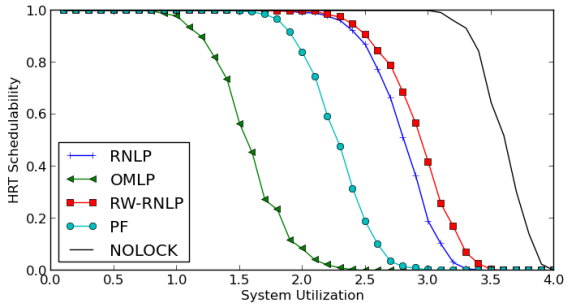

Figure 217: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

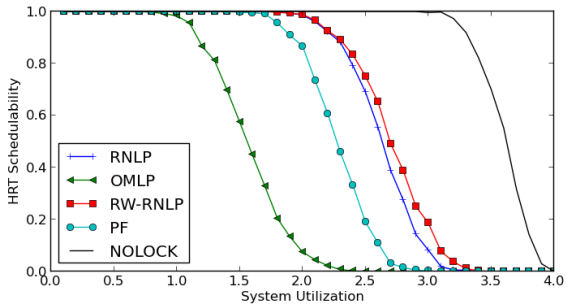

Figure 218: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

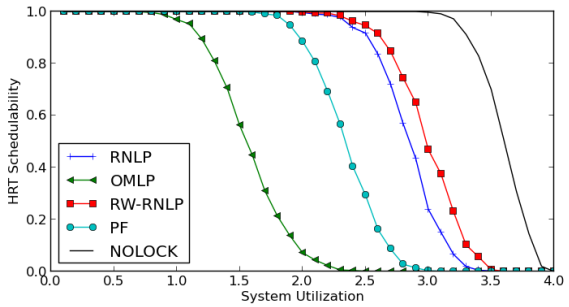

Figure 219: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

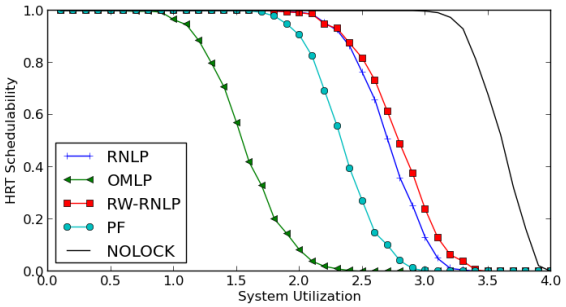

Figure 220: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

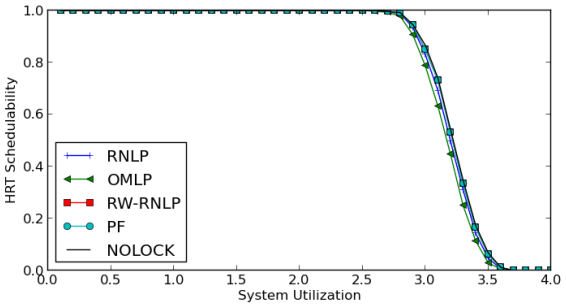

Figure 221: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

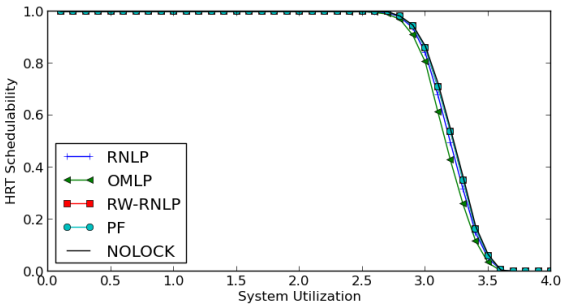

Figure 222: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

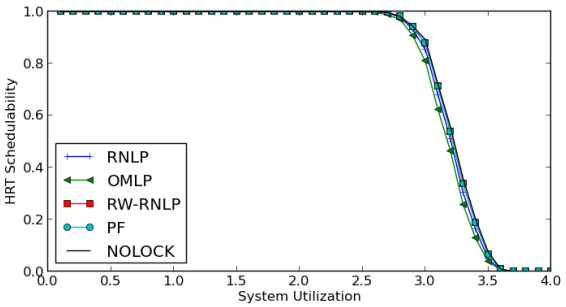

Figure 223: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

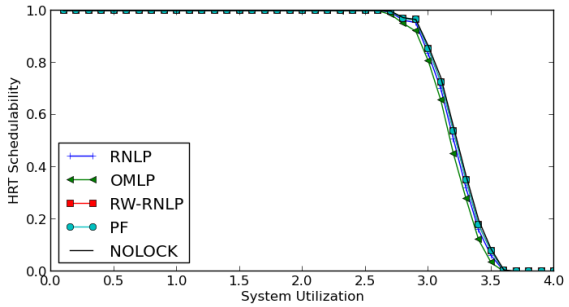

Figure 224: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

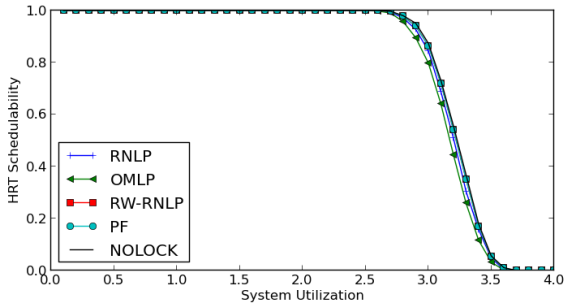

Figure 225: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

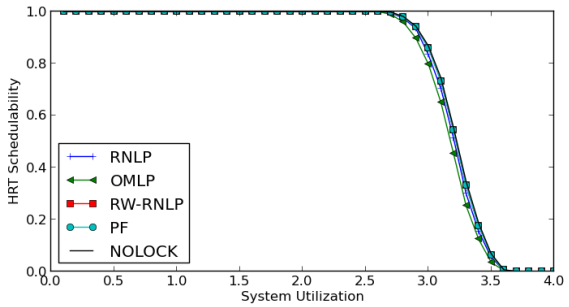

Figure 226: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

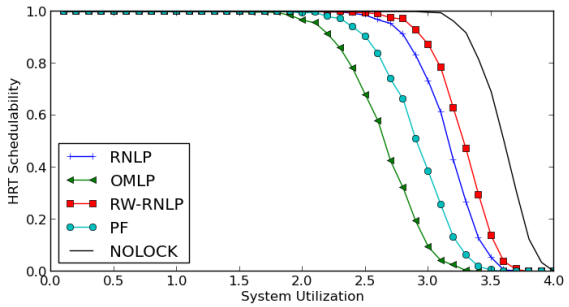

Figure 227: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

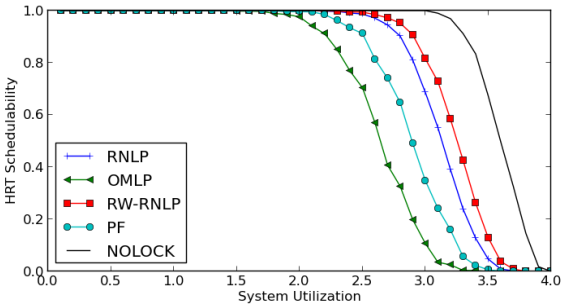

Figure 228: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

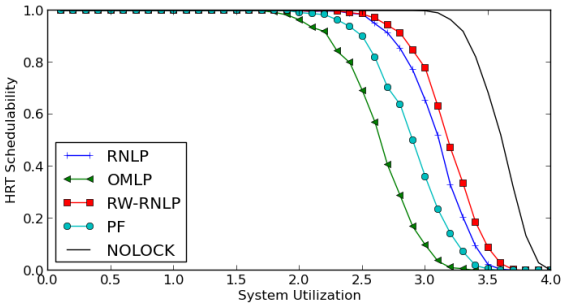

Figure 229: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

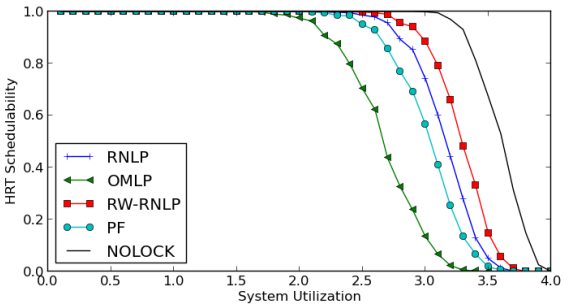

Figure 230: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

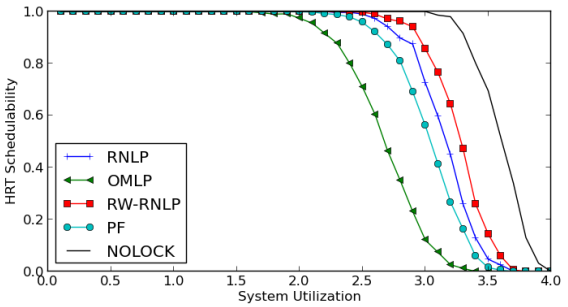

Figure 231: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

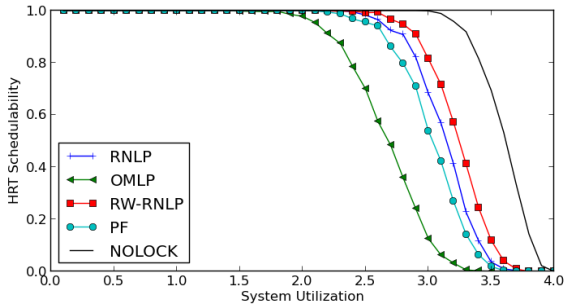

Figure 232: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

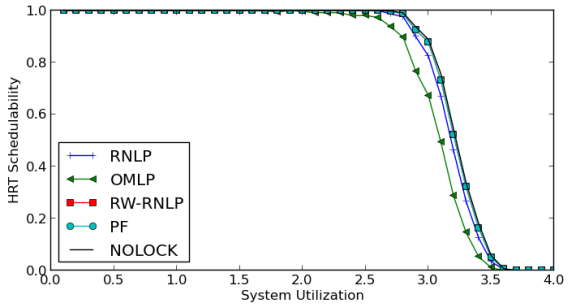

Figure 233: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

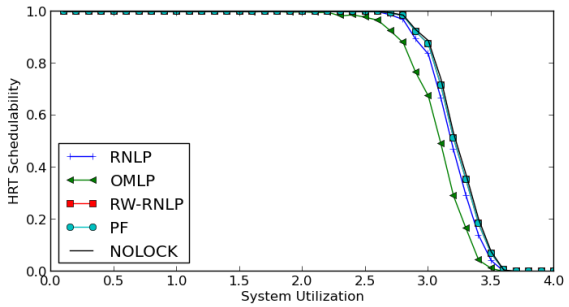

Figure 234: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

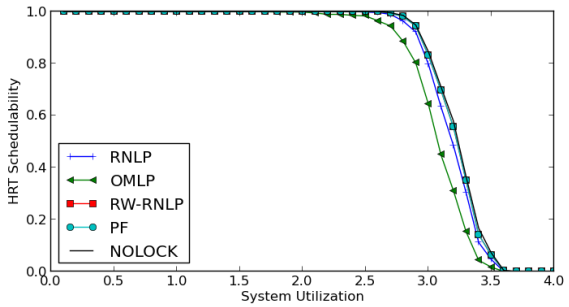

Figure 235: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

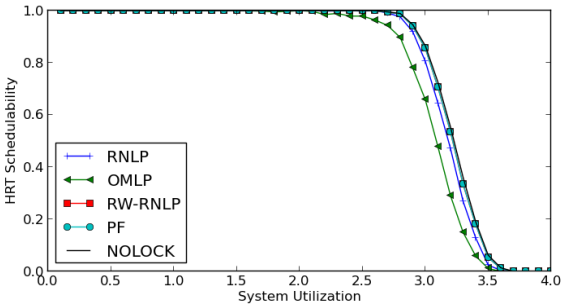

Figure 236: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

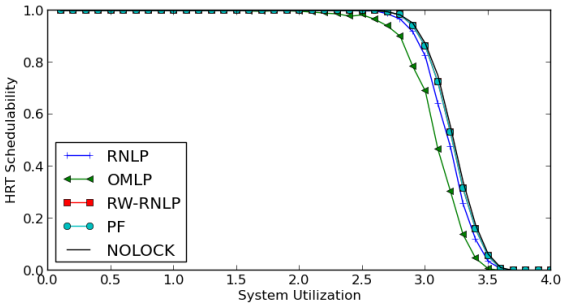

Figure 237: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

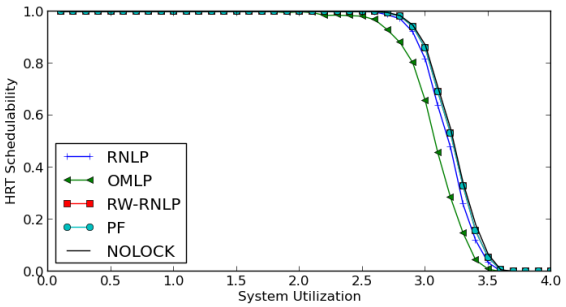

Figure 238: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

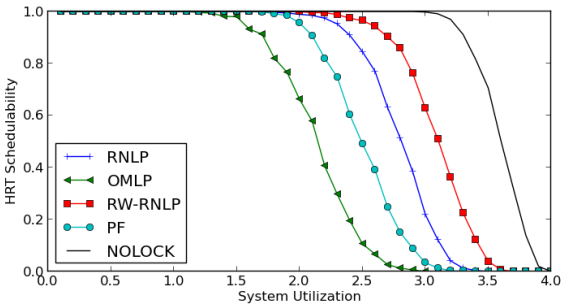

Figure 239: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

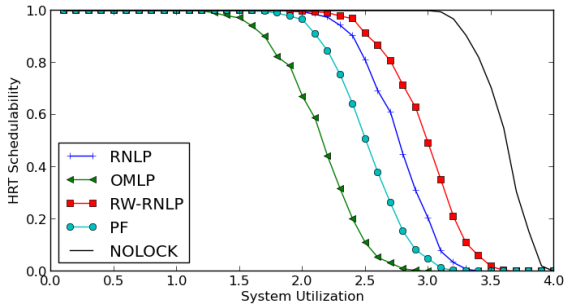

Figure 240: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

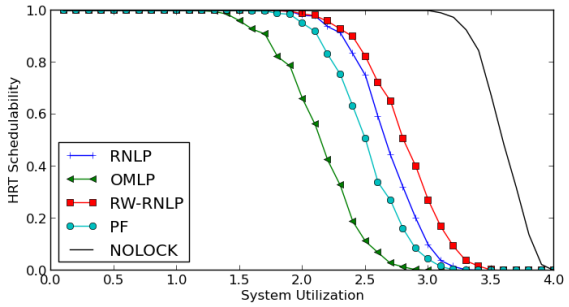

Figure 241: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

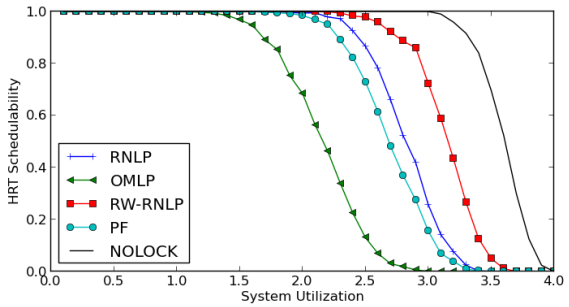

Figure 242: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

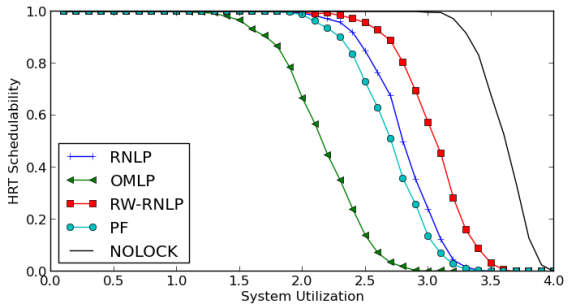

Figure 243: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

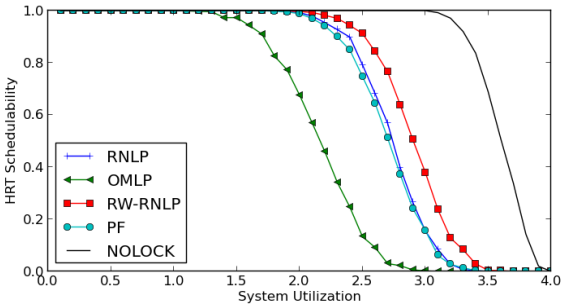

Figure 244: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

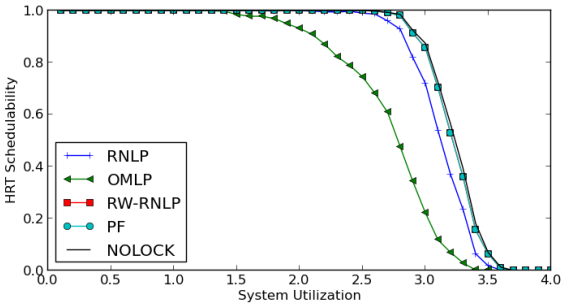

Figure 245: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

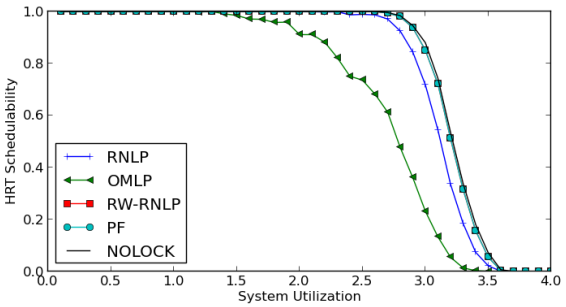

Figure 246: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

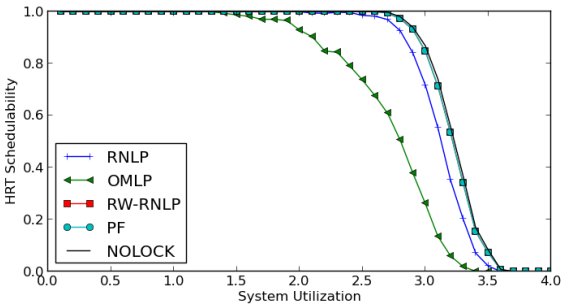

Figure 247: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

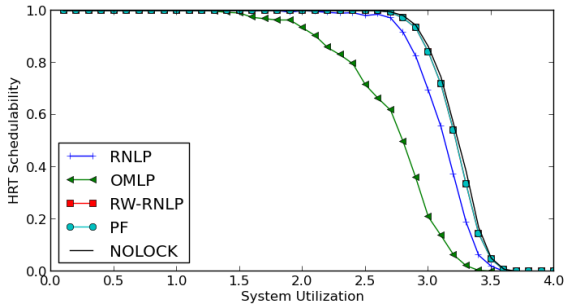

Figure 248: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

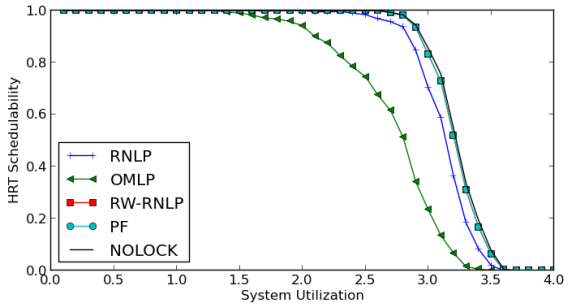

Figure 249: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

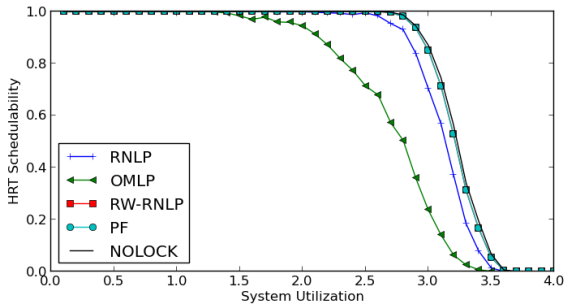

Figure 250: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

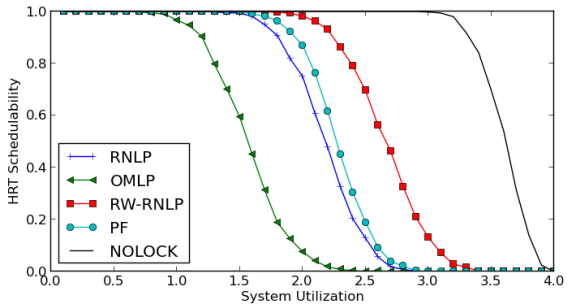

Figure 251: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

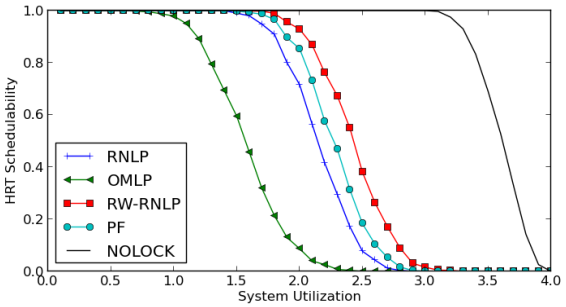

Figure 252: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

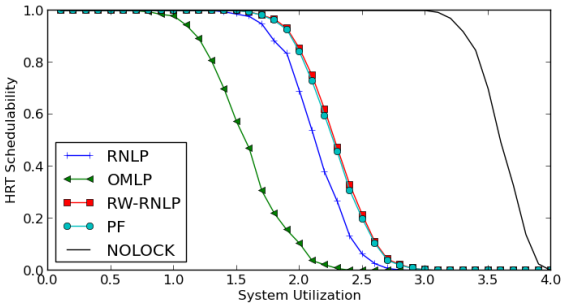

Figure 253: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

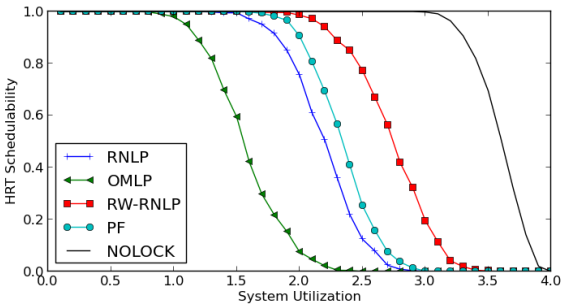

Figure 254: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

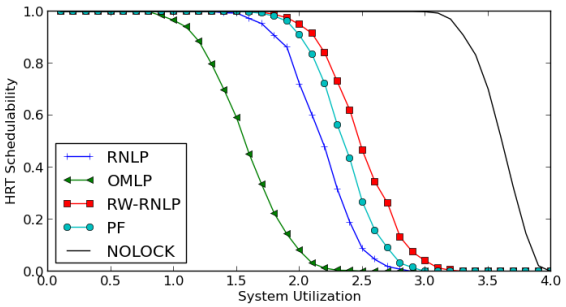

Figure 255: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

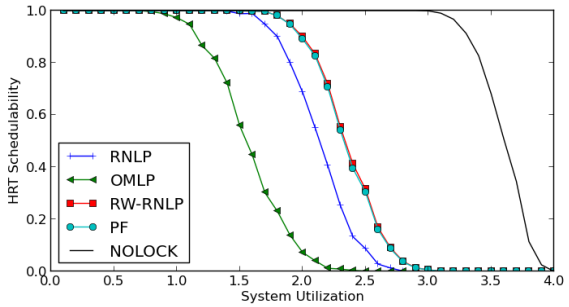

Figure 256: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

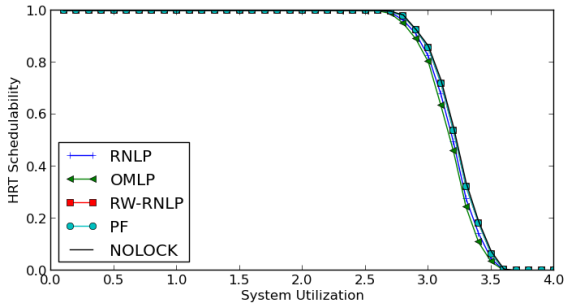

Figure 257: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

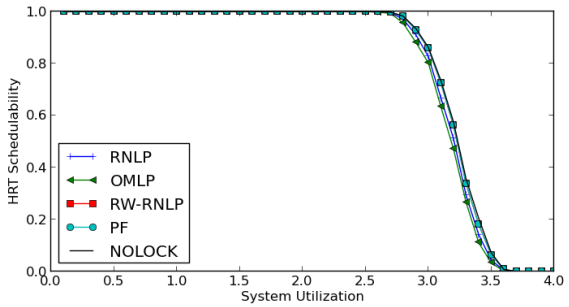

Figure 258: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

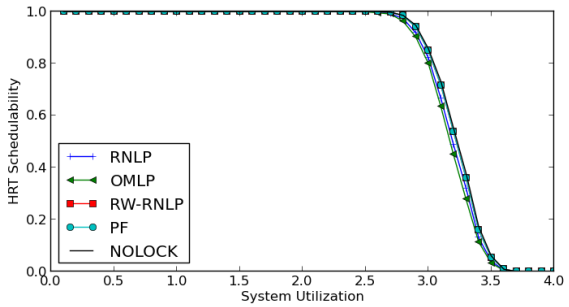

Figure 259: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

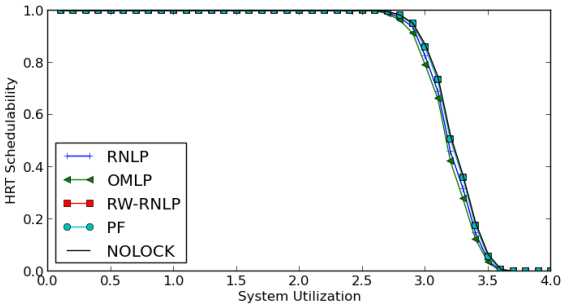

Figure 260: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

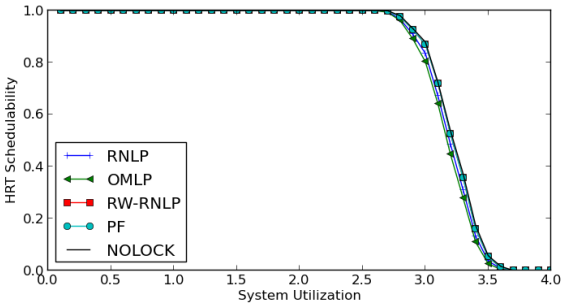

Figure 261: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

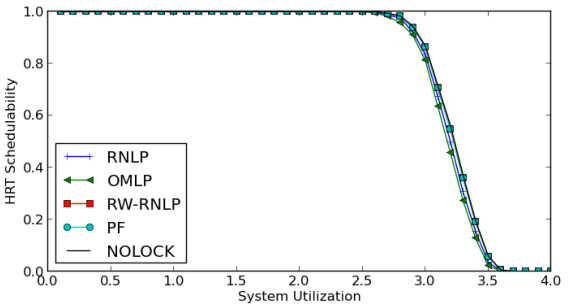

Figure 262: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

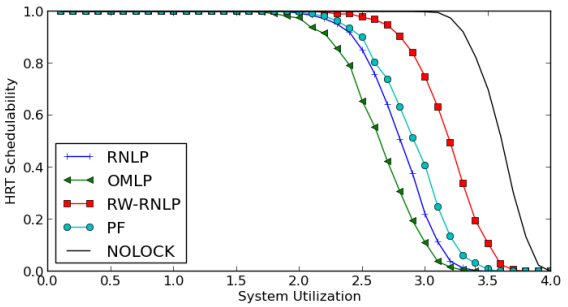

Figure 263: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

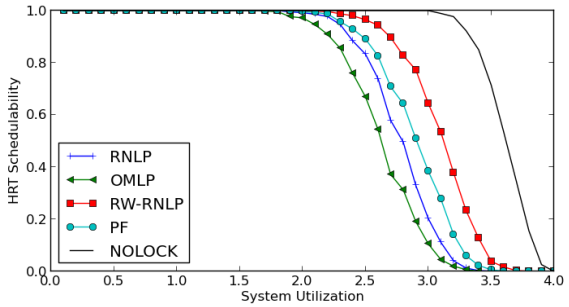

Figure 264: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

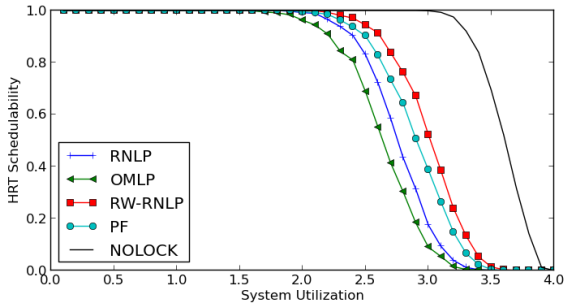

Figure 265: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

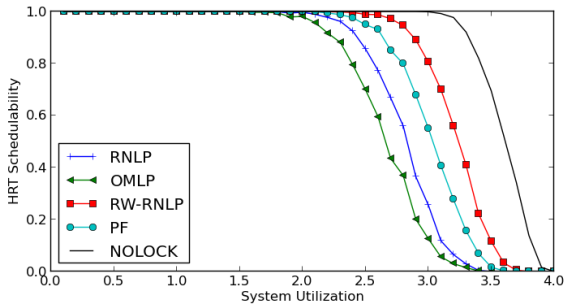

Figure 266: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

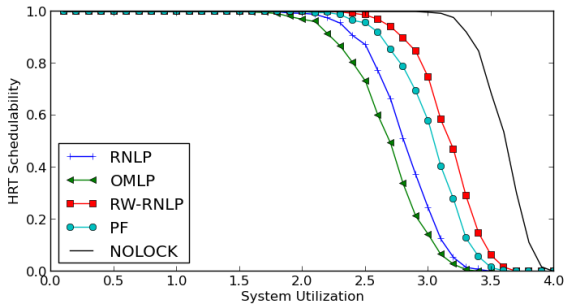

Figure 267: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

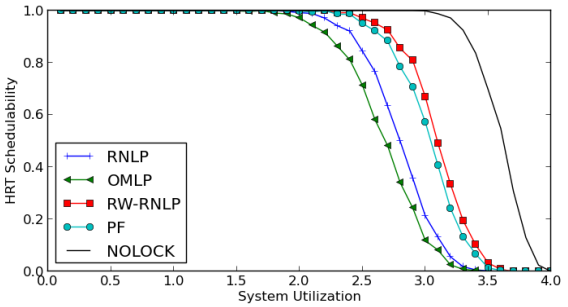

Figure 268: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

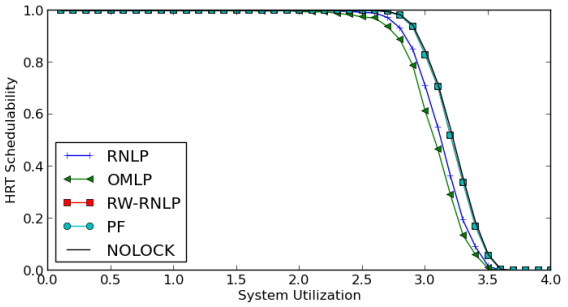

Figure 269: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

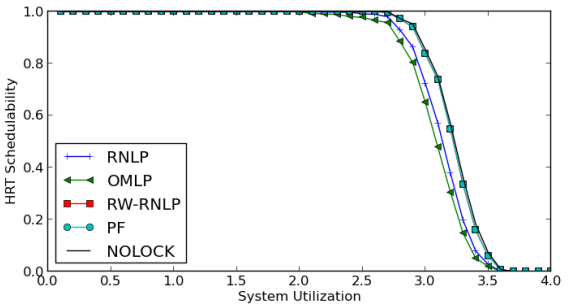

Figure 270: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

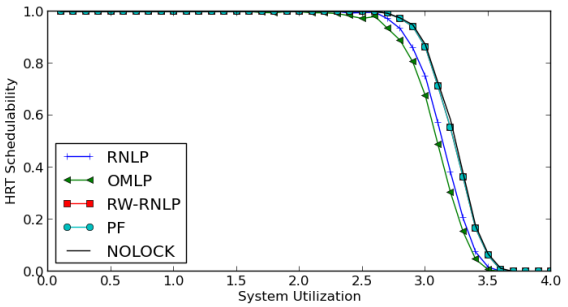

Figure 271: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

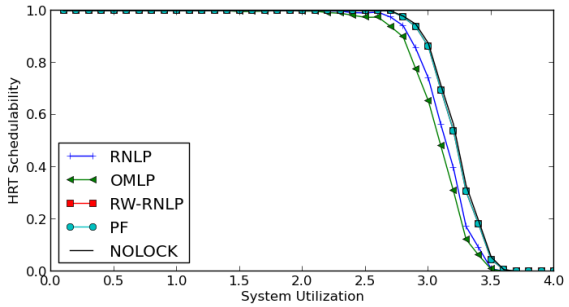

Figure 272: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

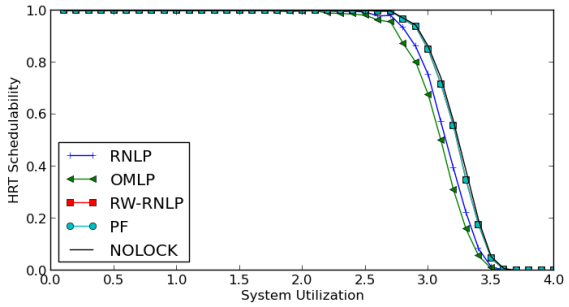

Figure 273: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

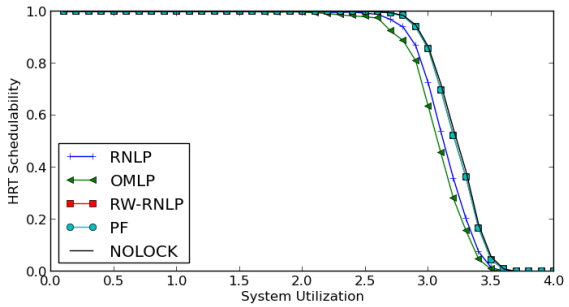

Figure 274: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

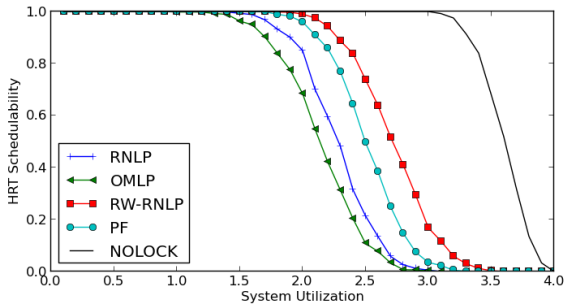

Figure 275: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

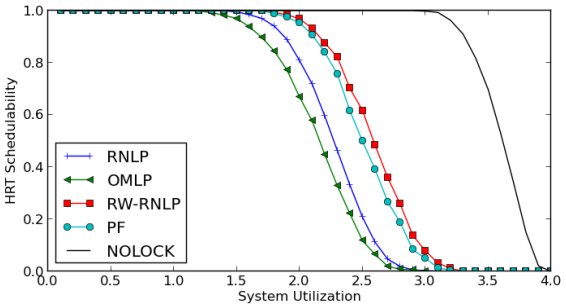

Figure 276: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

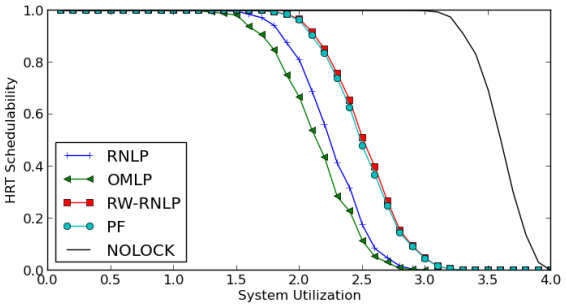

Figure 277: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

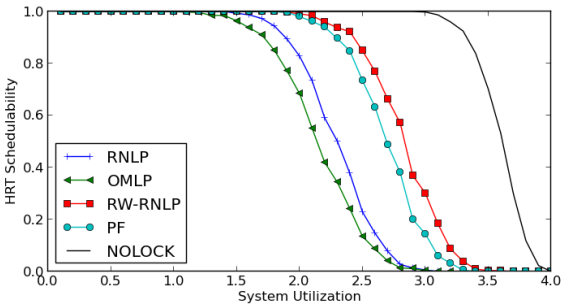

Figure 278: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

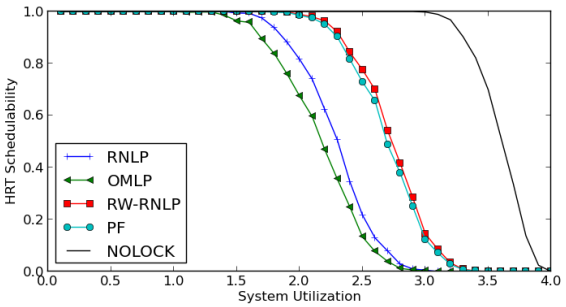

Figure 279: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

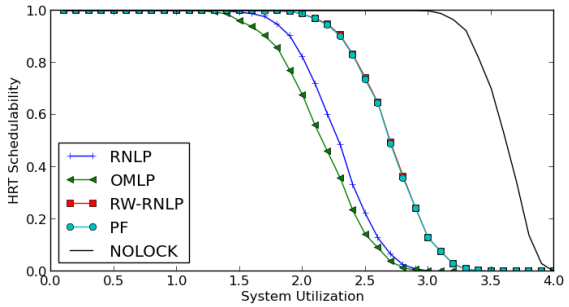

Figure 280: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

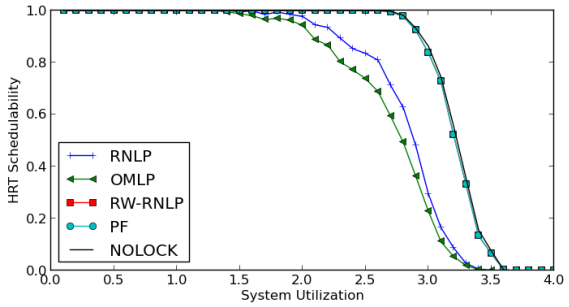

Figure 281: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

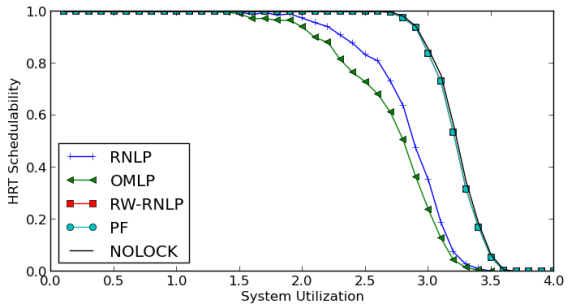

Figure 282: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

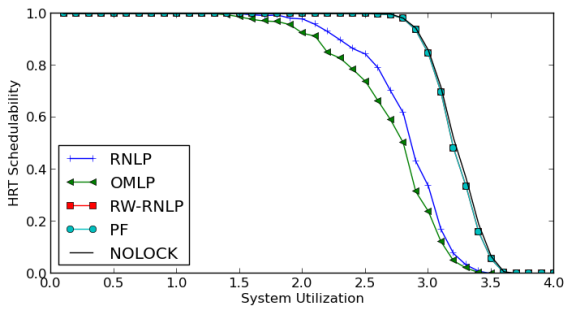

Figure 283: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

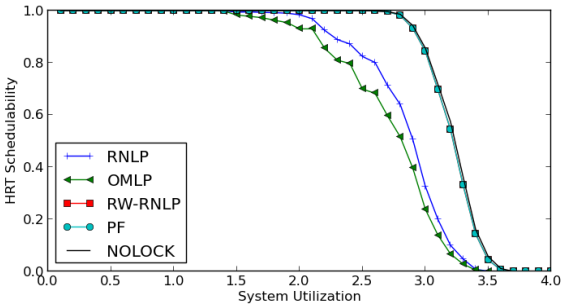

Figure 284: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

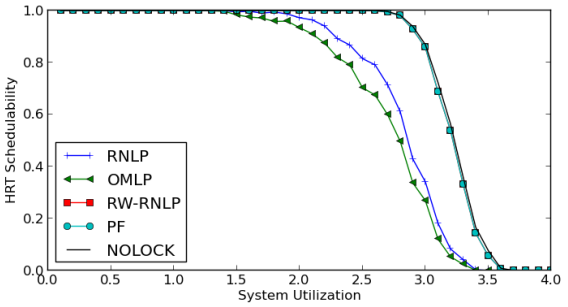

Figure 285: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

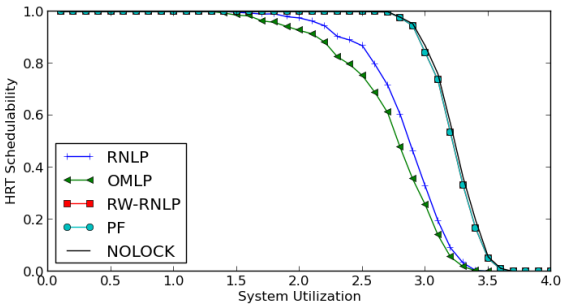

Figure 286: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

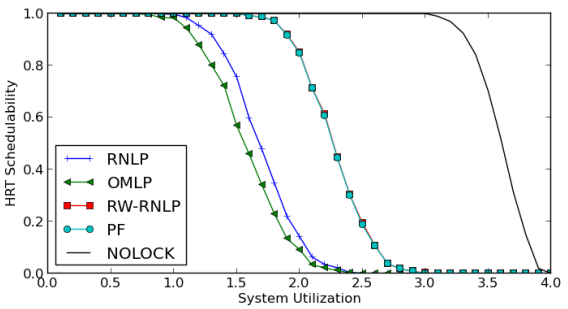

Figure 287: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

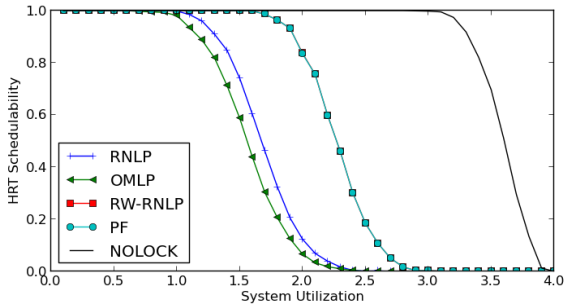

Figure 288: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

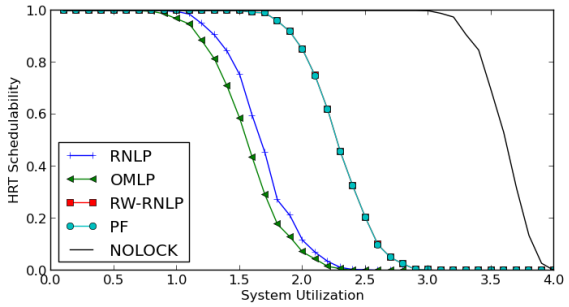

Figure 289: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

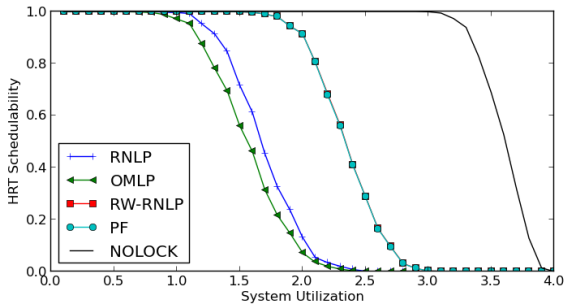

Figure 290: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

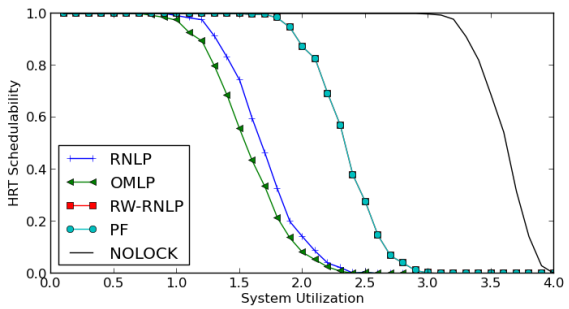

Figure 291: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

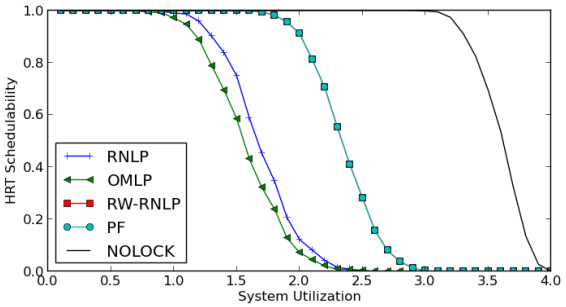

Figure 292: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

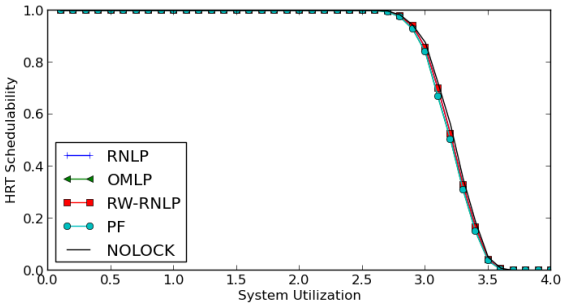

Figure 293: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

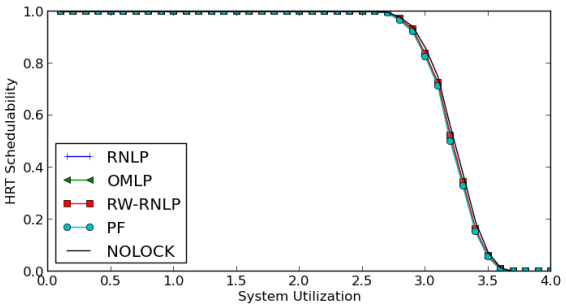

Figure 294: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

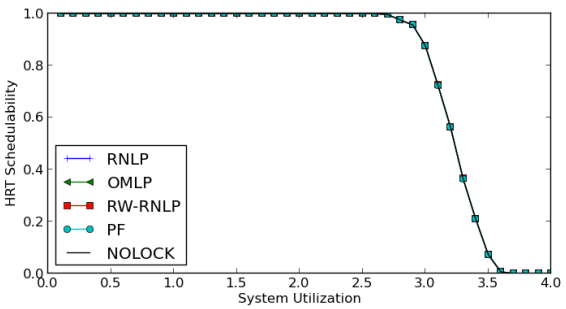

Figure 295: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

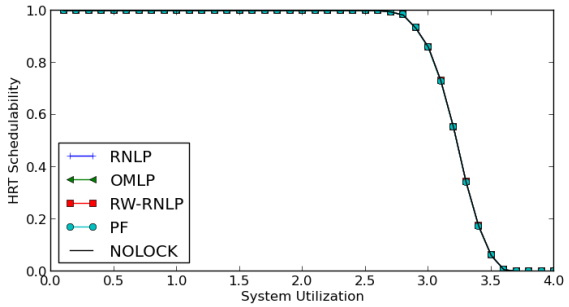

Figure 296: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

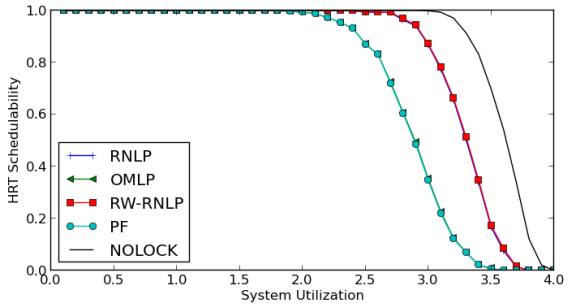

Figure 297: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

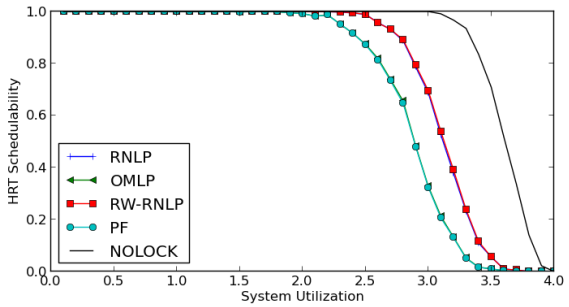

Figure 298: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

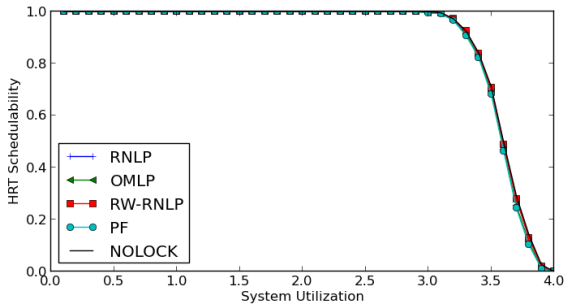

Figure 299: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

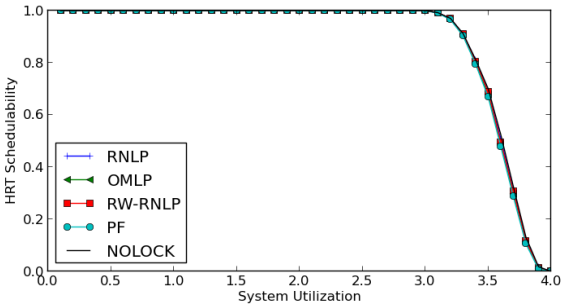

Figure 300: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

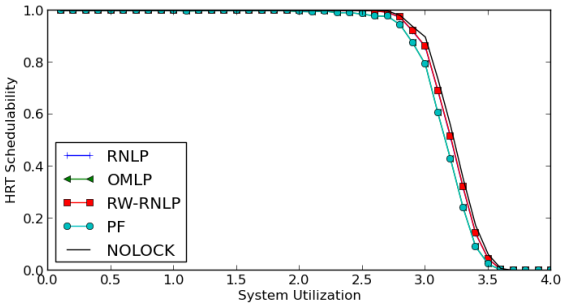

Figure 301: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

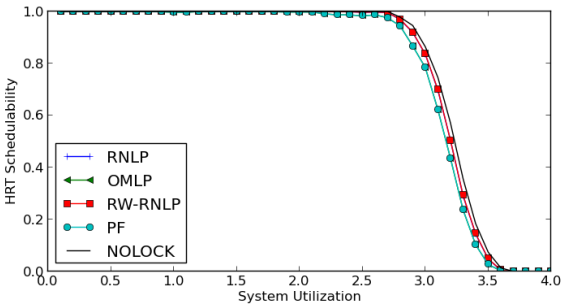

Figure 302: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

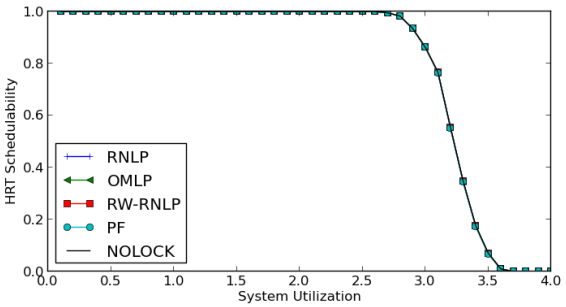

Figure 303: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

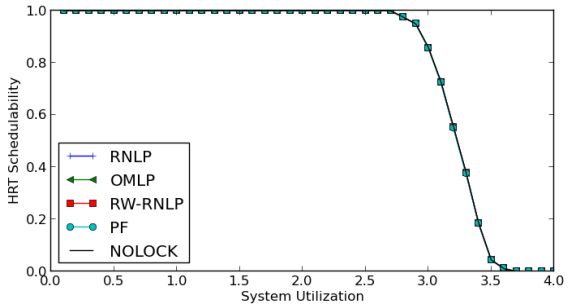

Figure 304: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

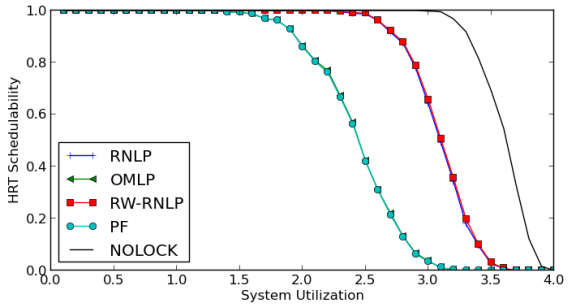

Figure 305: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

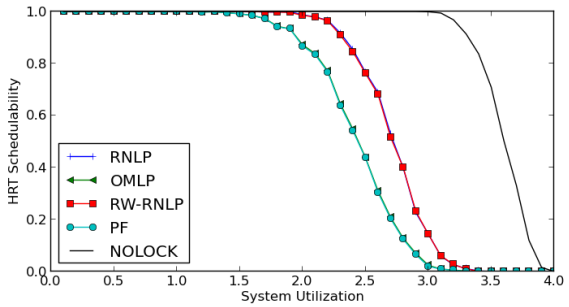

Figure 306: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

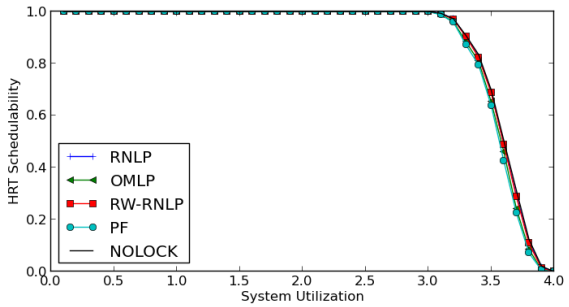

Figure 307: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

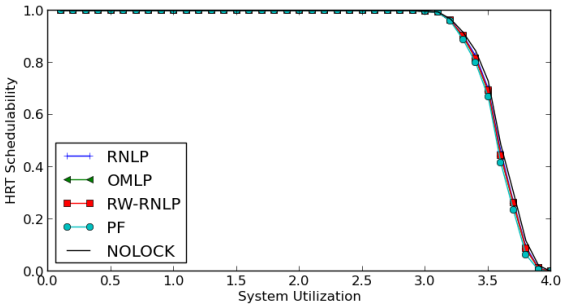

Figure 308: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

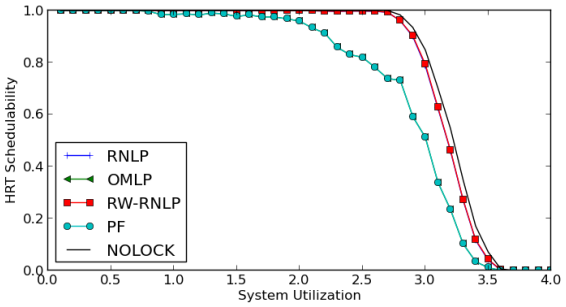

Figure 309: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

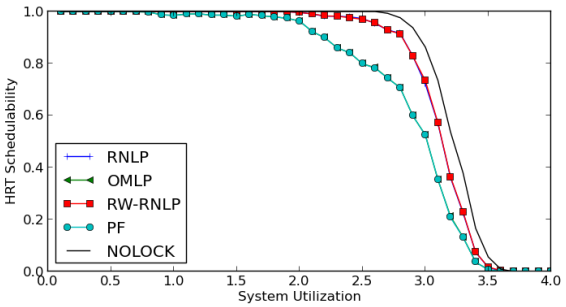

Figure 310: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

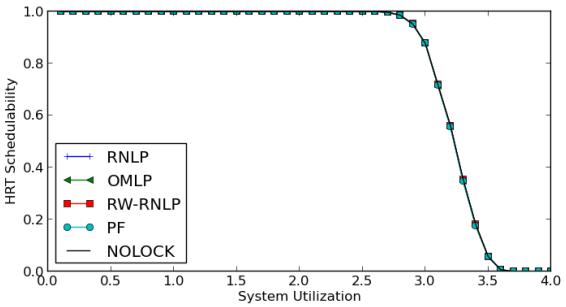

Figure 311: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

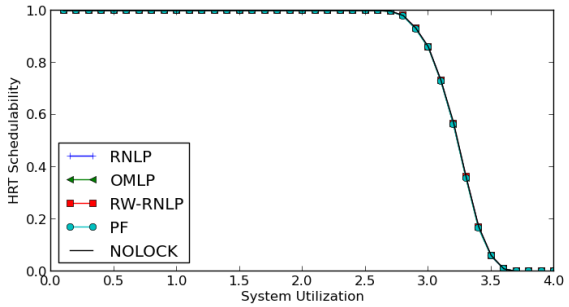

Figure 312: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

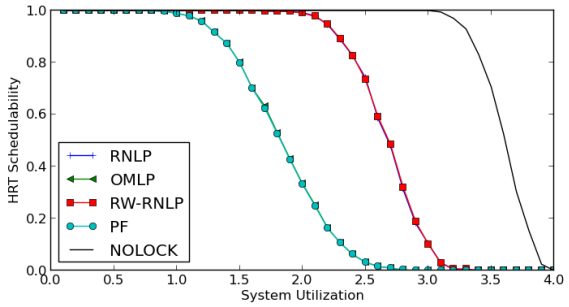

Figure 313: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

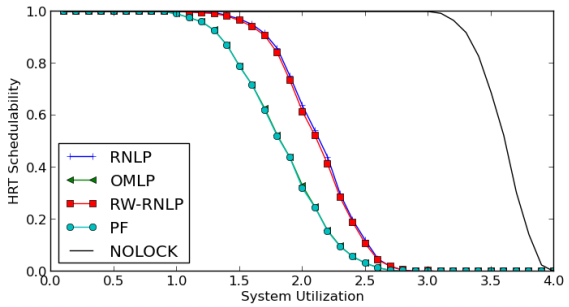

Figure 314: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

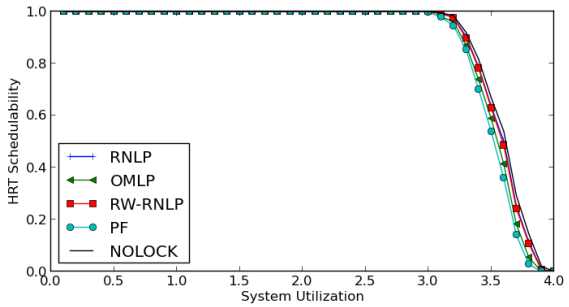

Figure 315: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

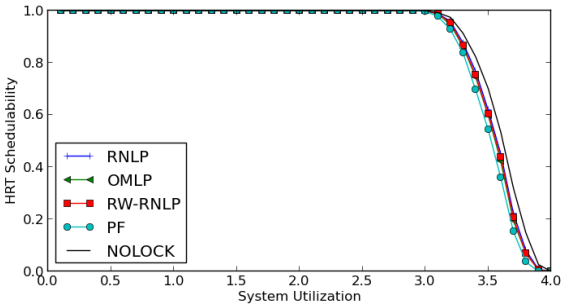

Figure 316: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

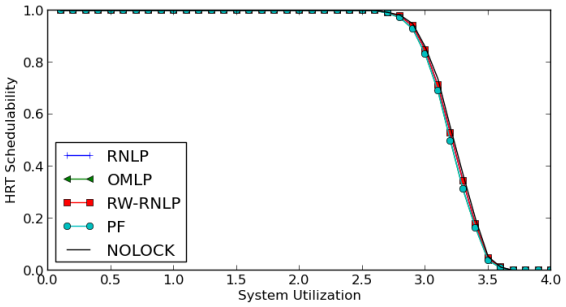

Figure 317: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

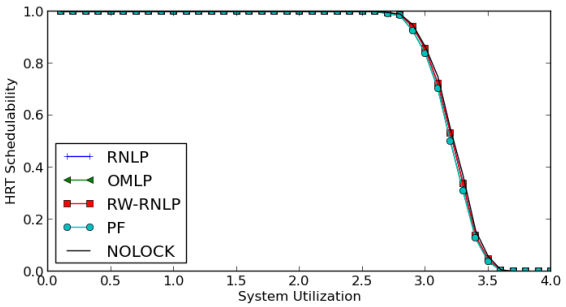

Figure 318: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

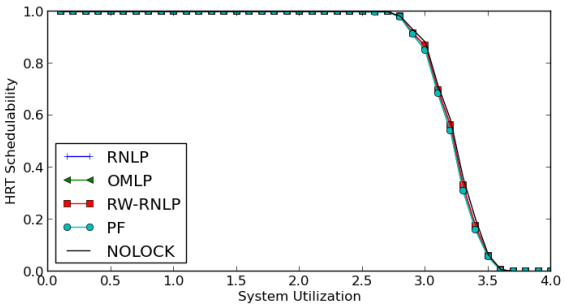

Figure 319: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

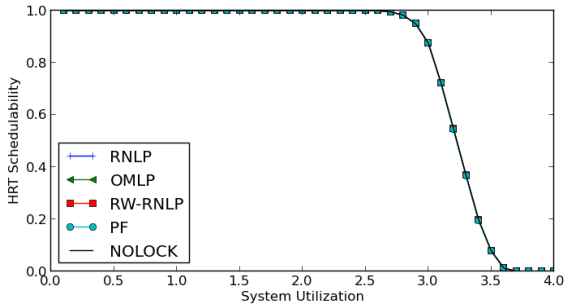

Figure 320: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

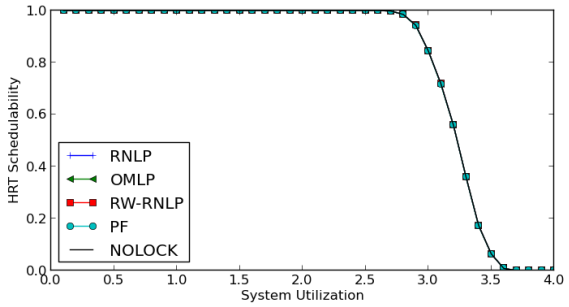

Figure 321: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

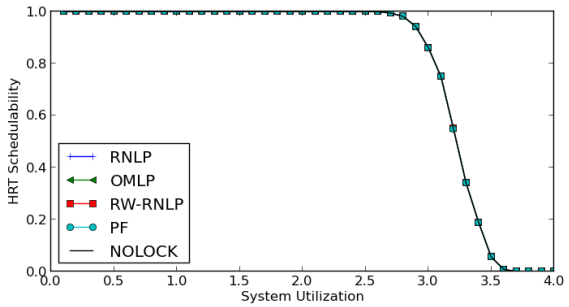

Figure 322: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

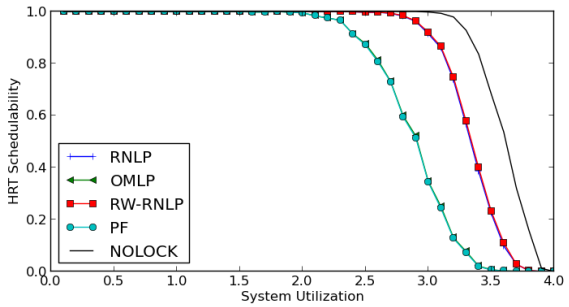

Figure 323: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

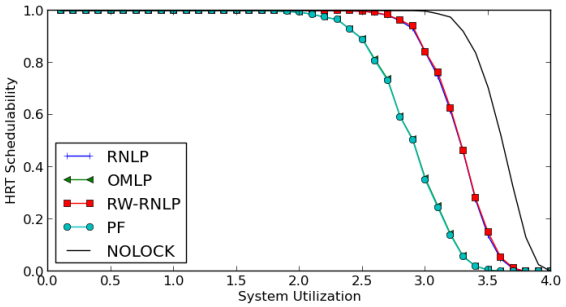

Figure 324: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

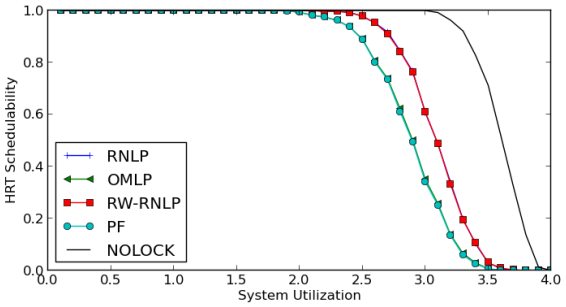

Figure 325: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

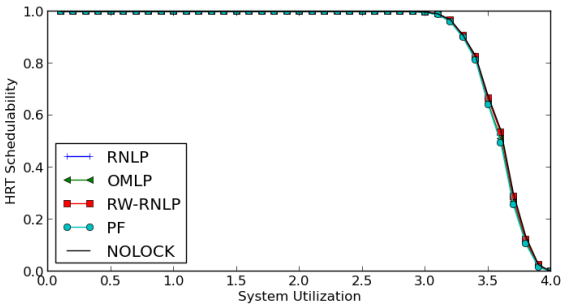

Figure 326: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

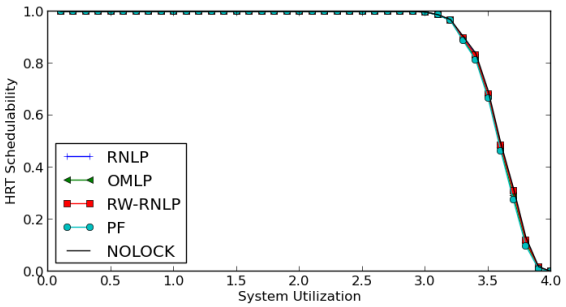

Figure 327: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

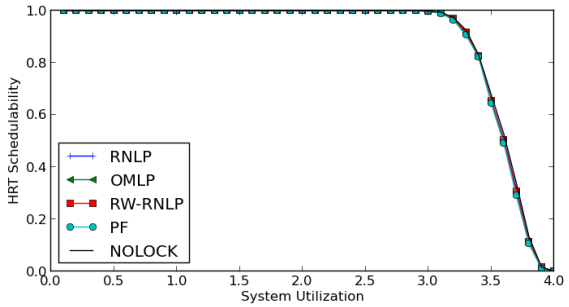

Figure 328: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

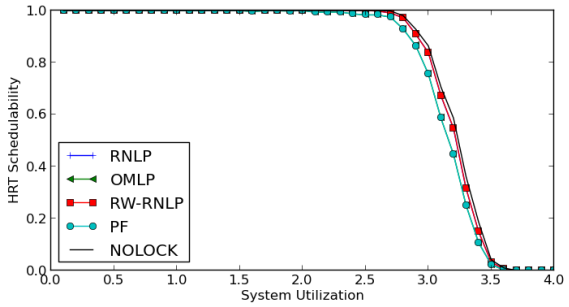

Figure 329: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

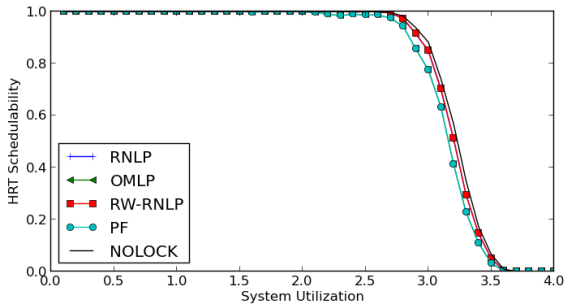

Figure 330: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

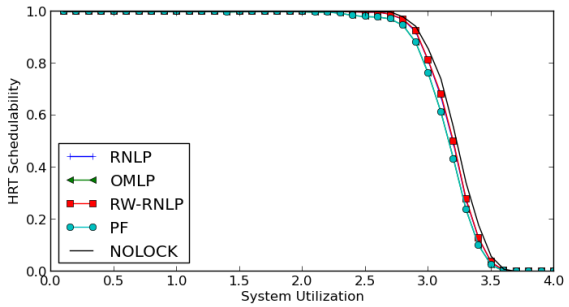

Figure 331: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

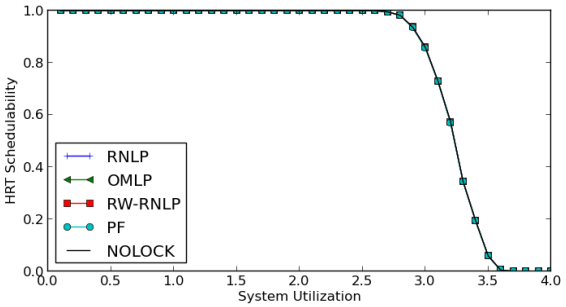

Figure 332: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

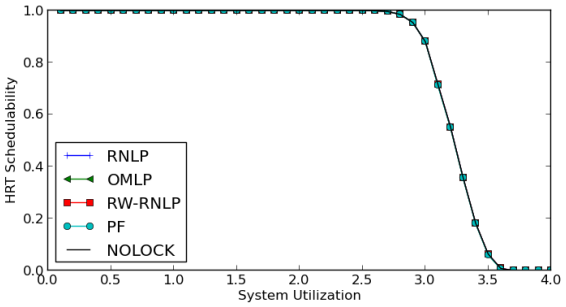

Figure 333: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

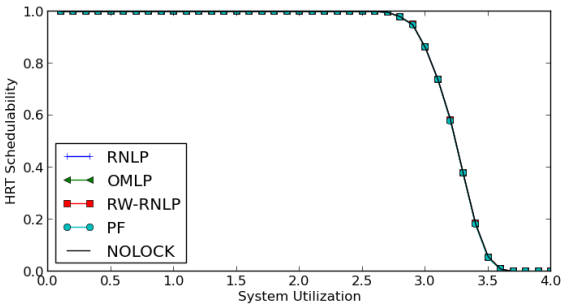

Figure 334: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

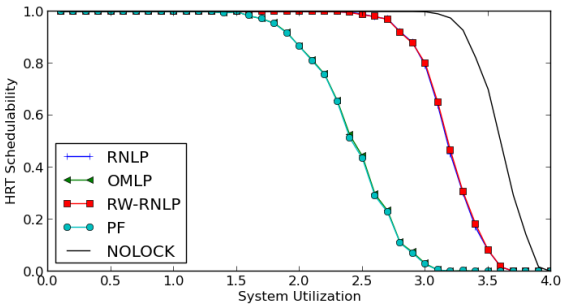

Figure 335: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

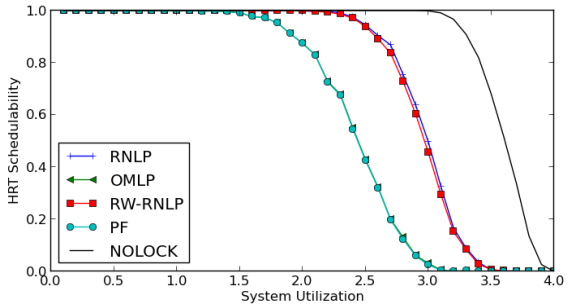

Figure 336: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

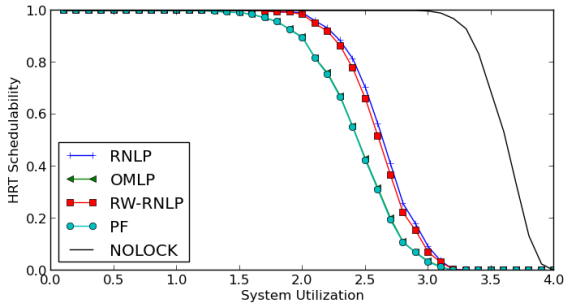

Figure 337: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

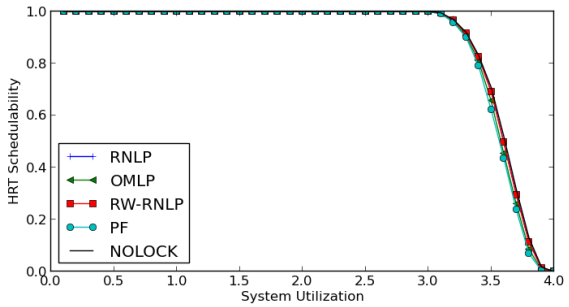

Figure 338: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

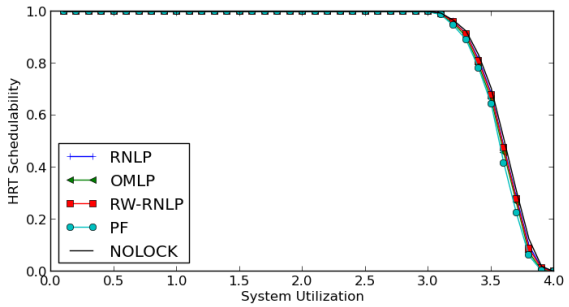

Figure 339: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

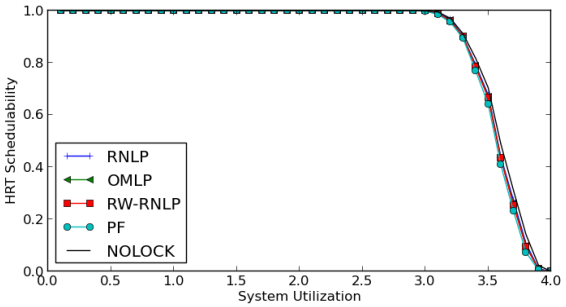

Figure 340: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

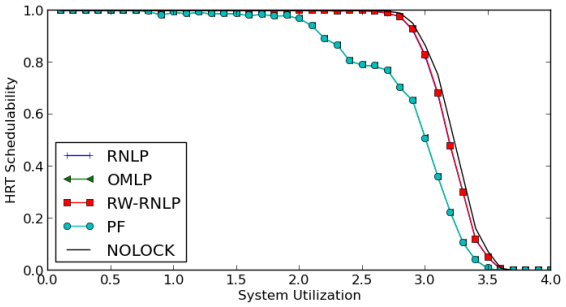

Figure 341: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

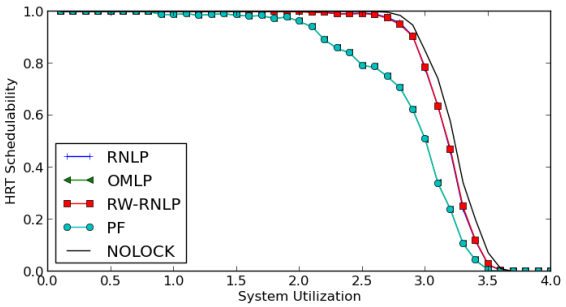

Figure 342: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

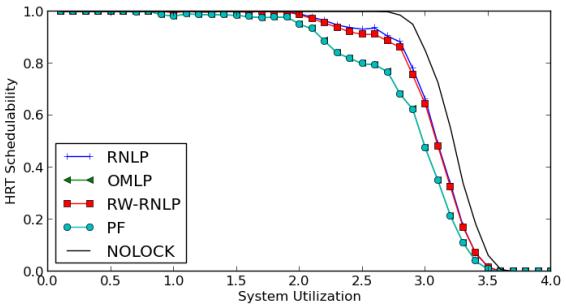

Figure 343: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

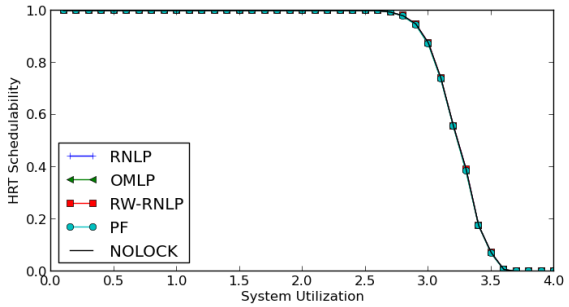

Figure 344: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

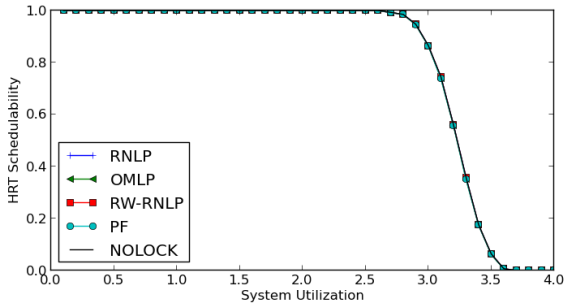

Figure 345: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

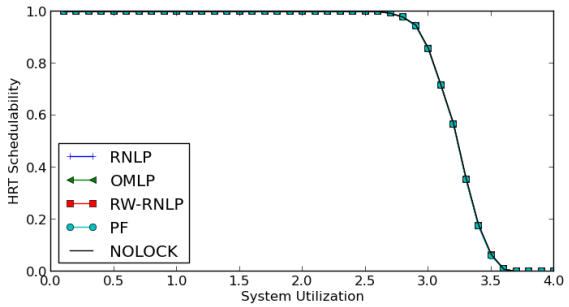

Figure 346: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

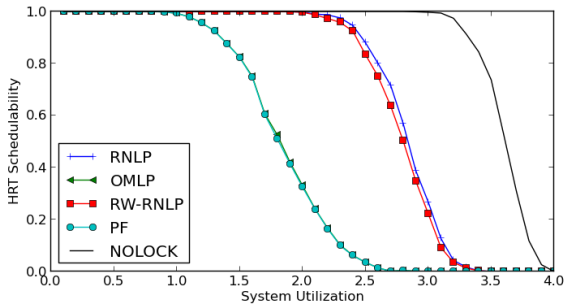

Figure 347: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

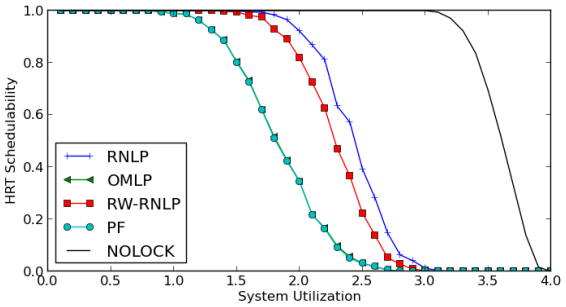

Figure 348: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

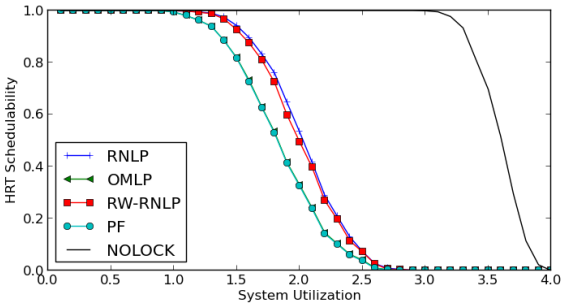

Figure 349: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

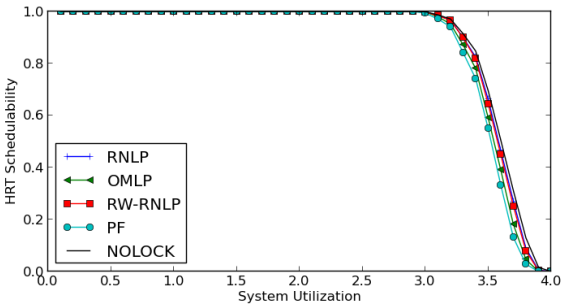

Figure 350: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

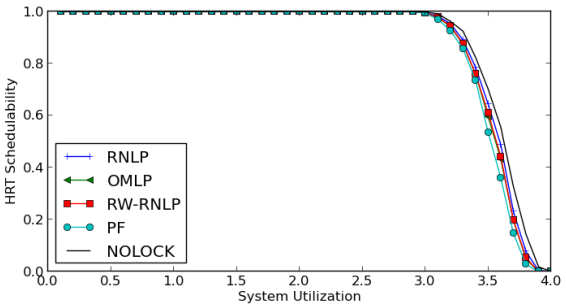

Figure 351: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

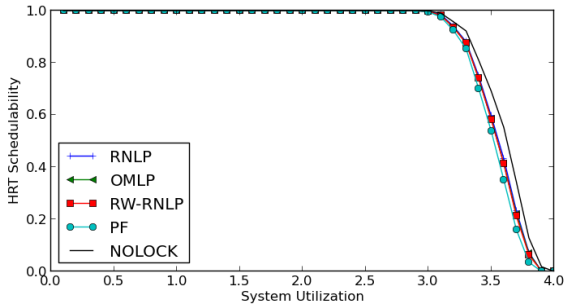

Figure 352: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

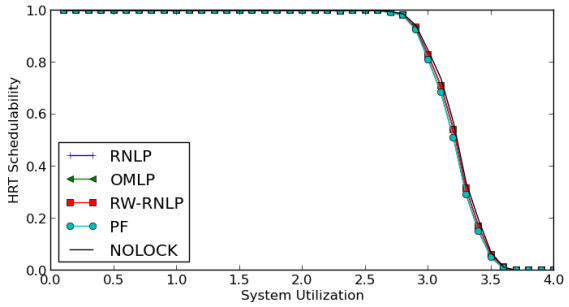

Figure 353: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

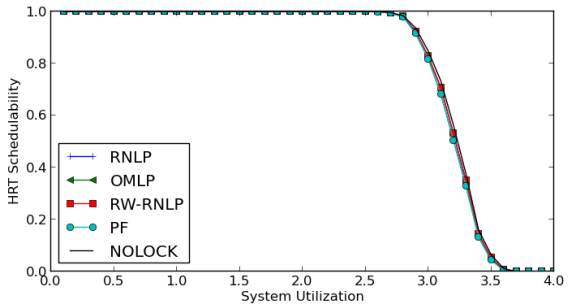

Figure 354: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

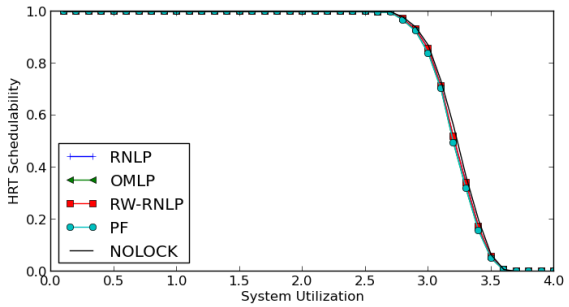

Figure 355: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

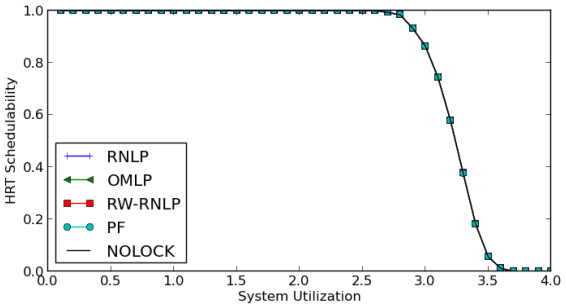

Figure 356: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

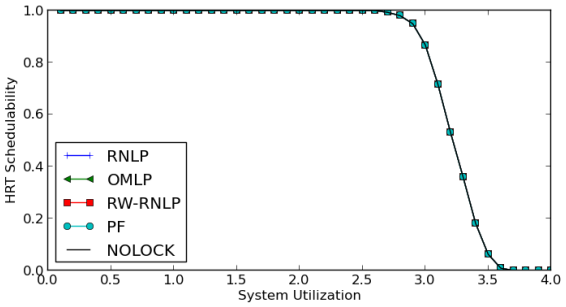

Figure 357: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

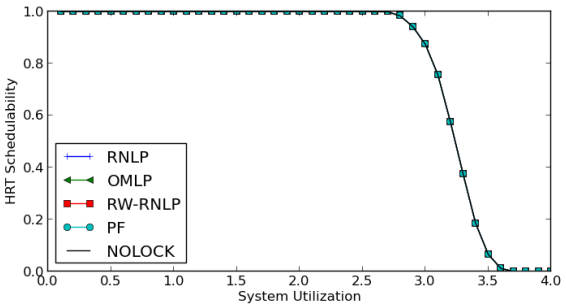

Figure 358: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

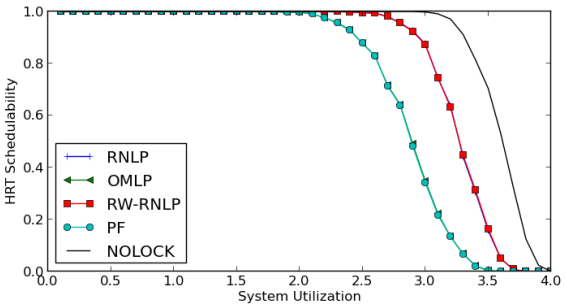

Figure 359: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

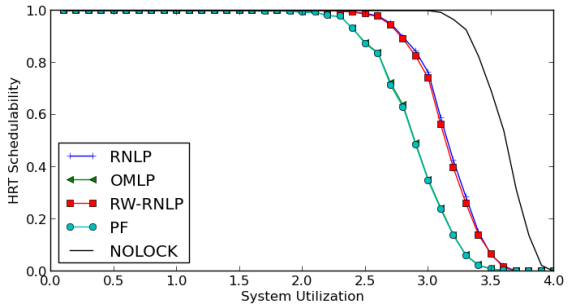

Figure 360: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

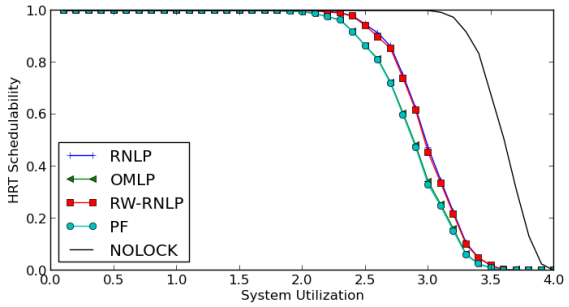

Figure 361: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

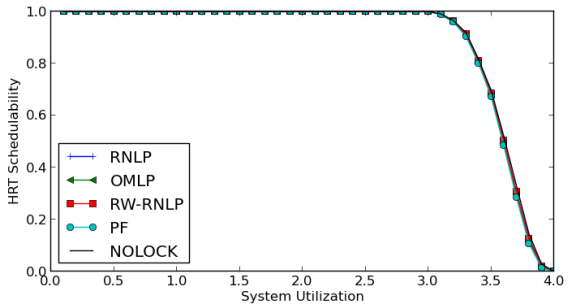

Figure 362: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

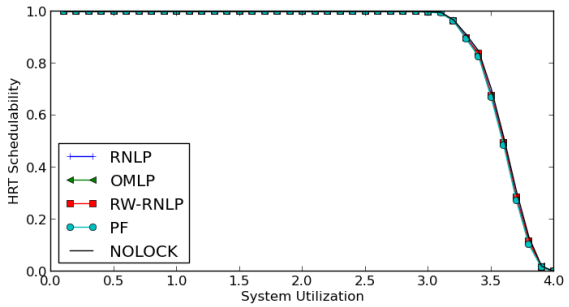

Figure 363: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

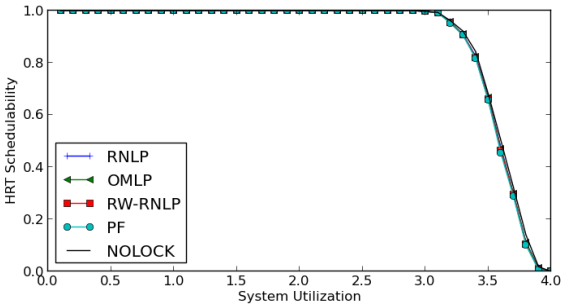

Figure 364: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

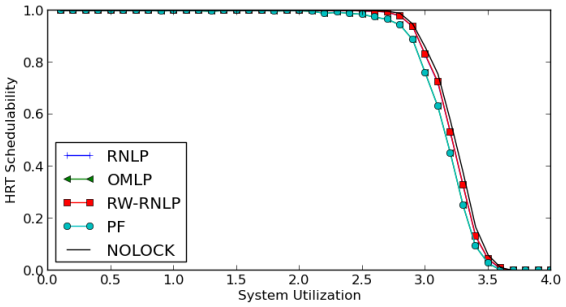

Figure 365: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

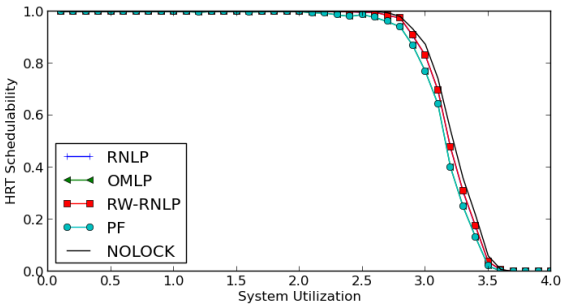

Figure 366: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

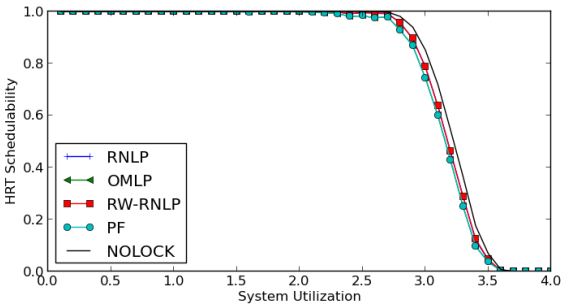

Figure 367: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

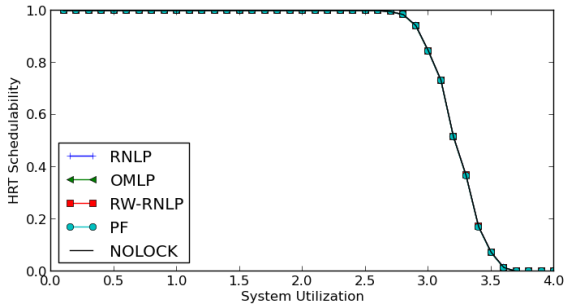

Figure 368: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

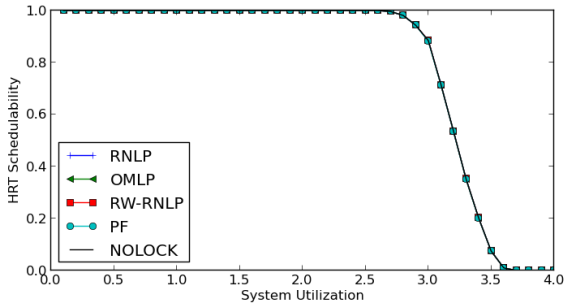

Figure 369: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

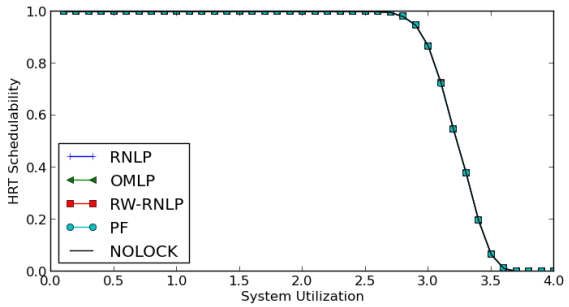

Figure 370: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

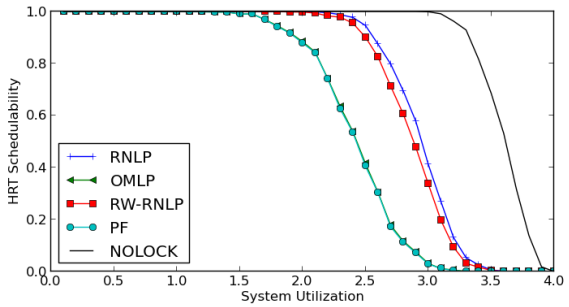

Figure 371: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

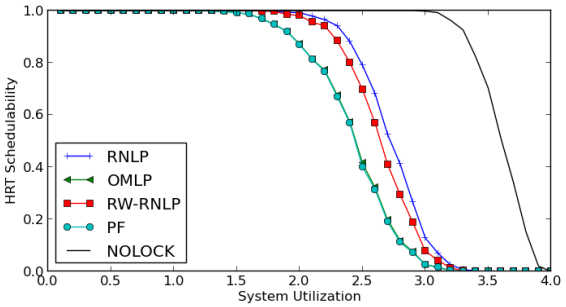

Figure 372: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

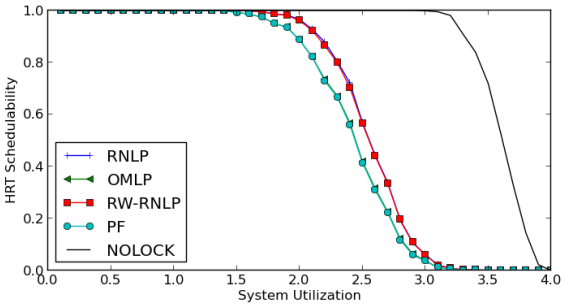

Figure 373: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

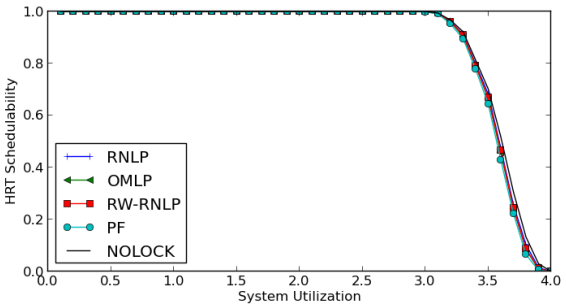

Figure 374: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

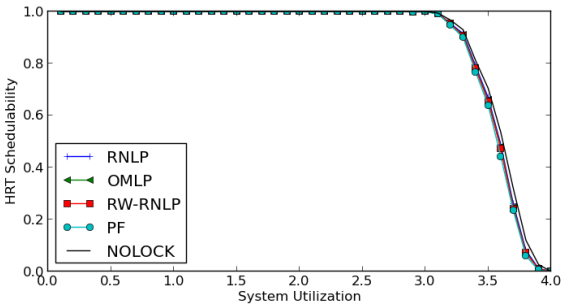

Figure 375: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

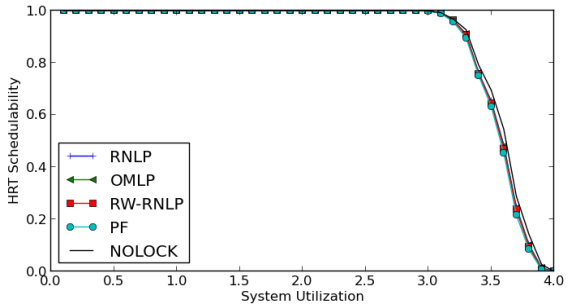

Figure 376: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

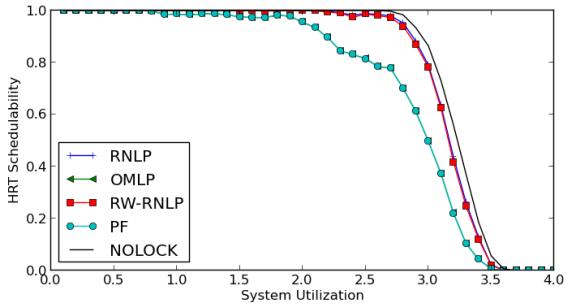

Figure 377: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

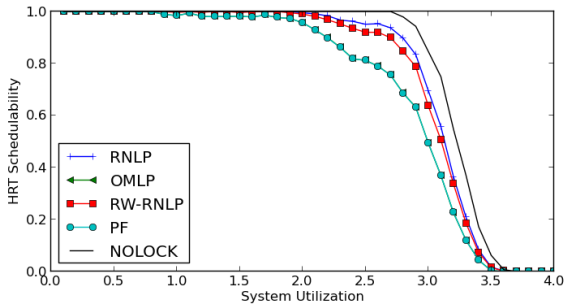

Figure 378: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

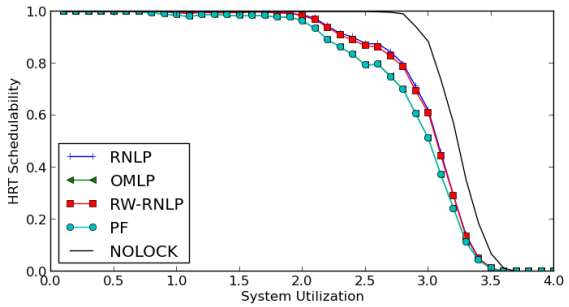

Figure 379: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

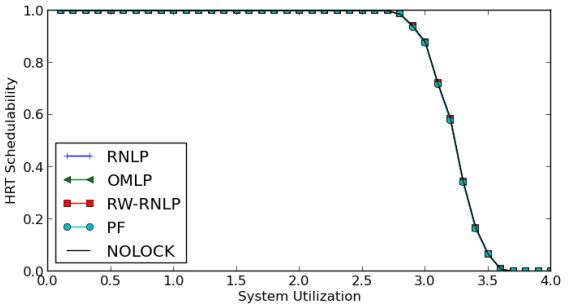

Figure 380: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

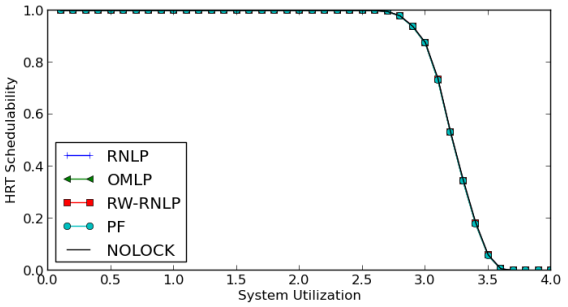

Figure 381: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

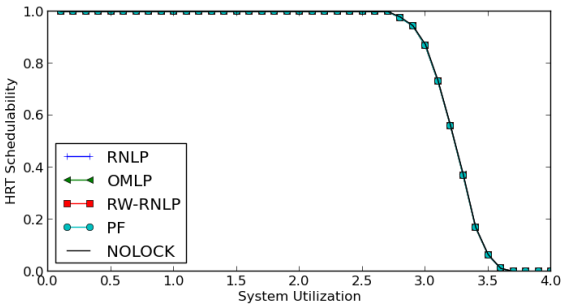

Figure 382: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

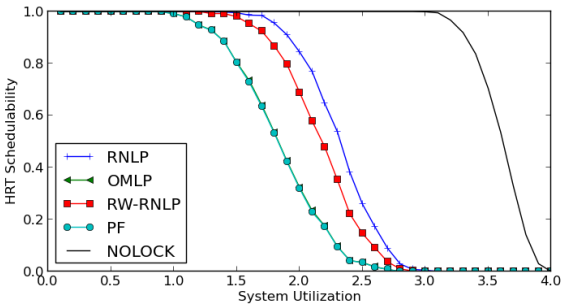

Figure 383: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

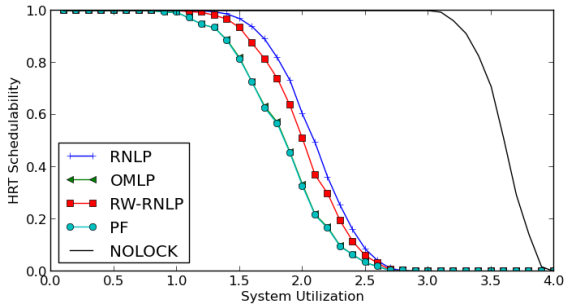

Figure 384: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

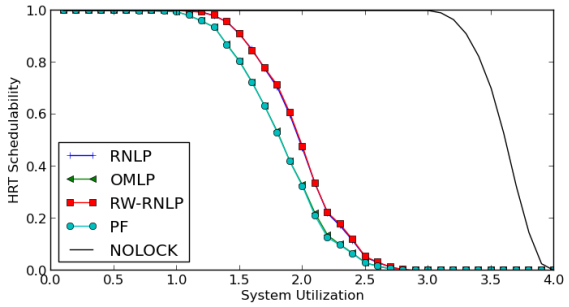

Figure 385: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

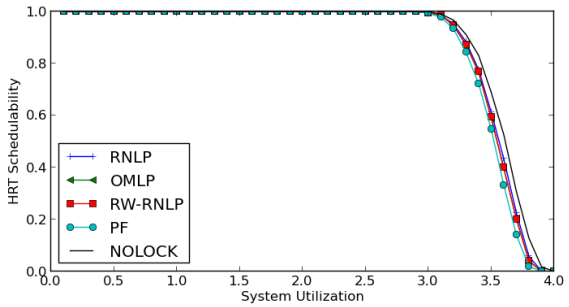

Figure 386: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

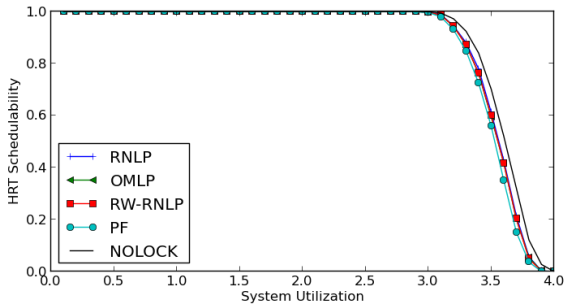

Figure 387: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

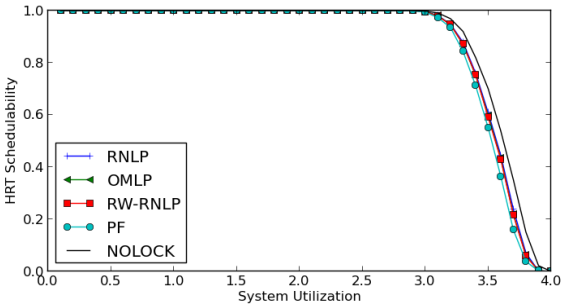

Figure 388: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

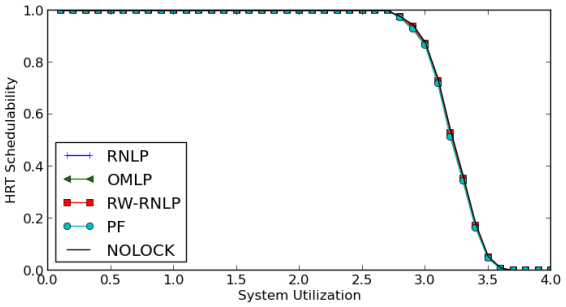

Figure 389: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

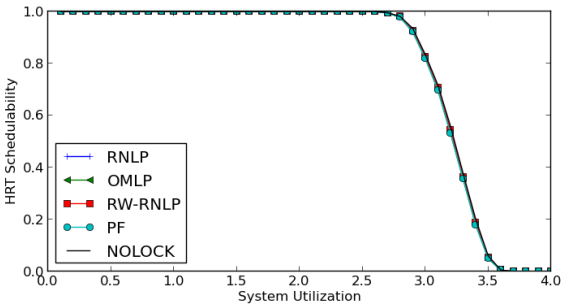

Figure 390: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

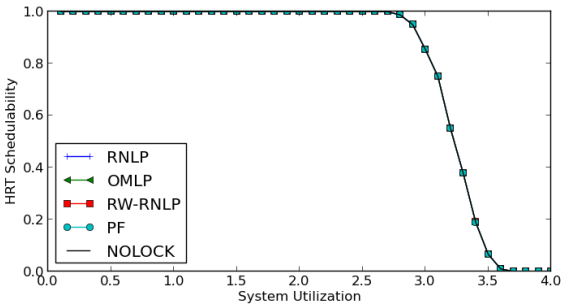

Figure 391: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

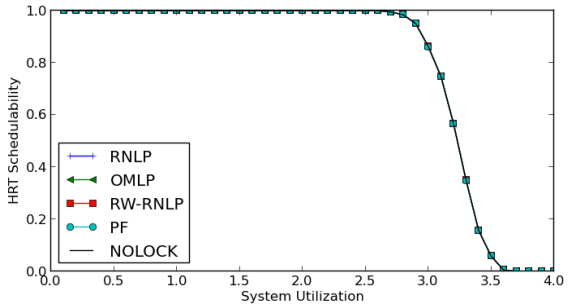

Figure 392: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

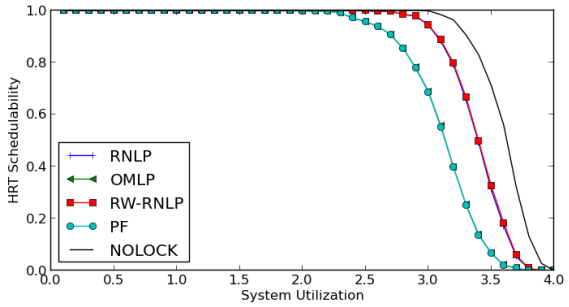

Figure 393: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

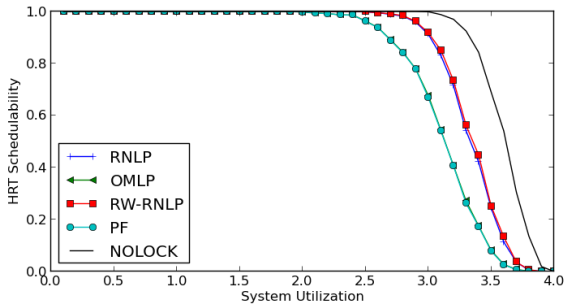

Figure 394: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

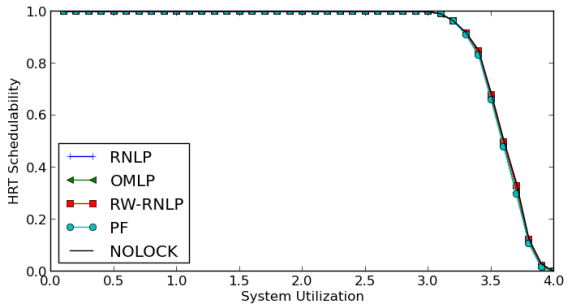

Figure 395: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

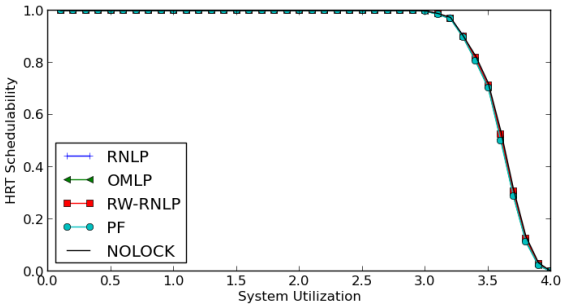

Figure 396: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

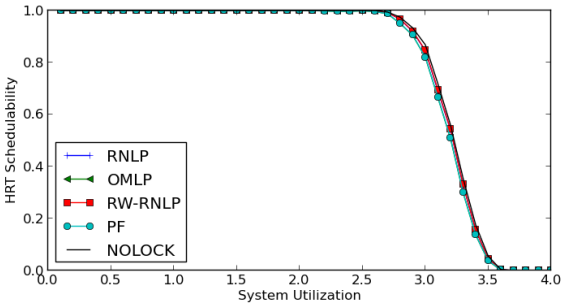

Figure 397: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

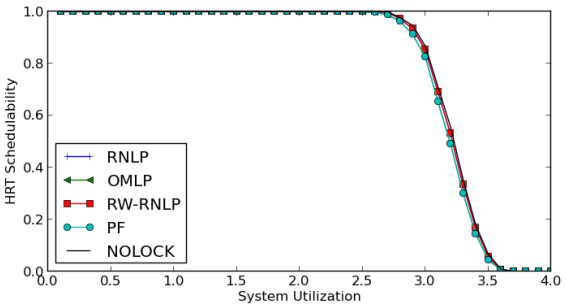

Figure 398: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

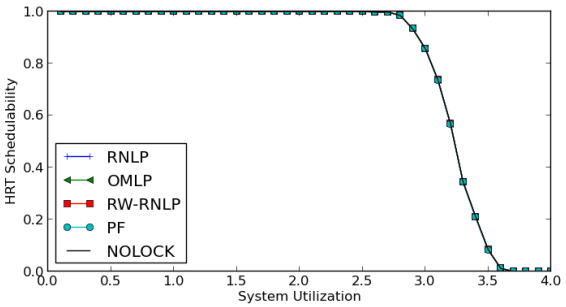

Figure 399: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

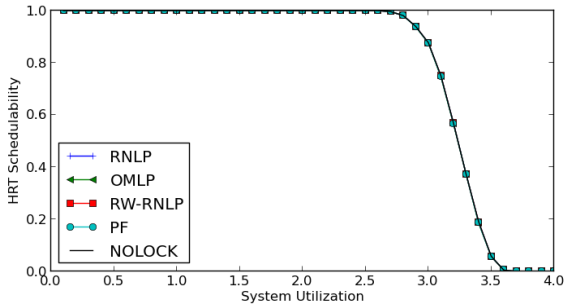

Figure 400: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

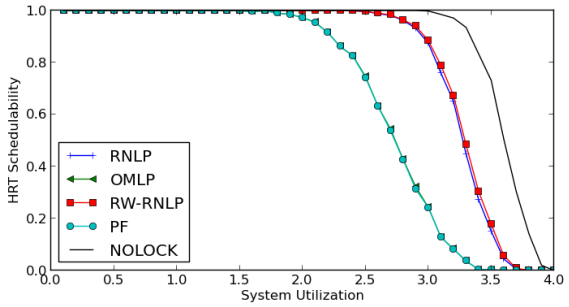

Figure 401: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

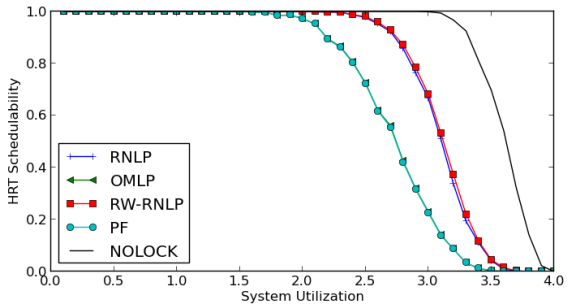

Figure 402: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

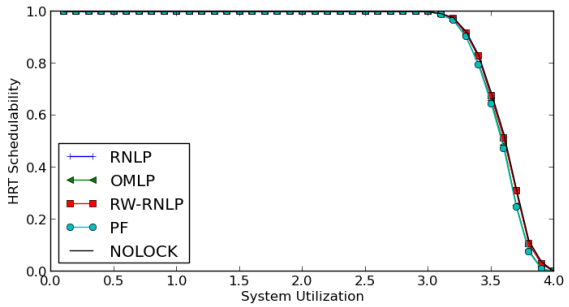

Figure 403: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

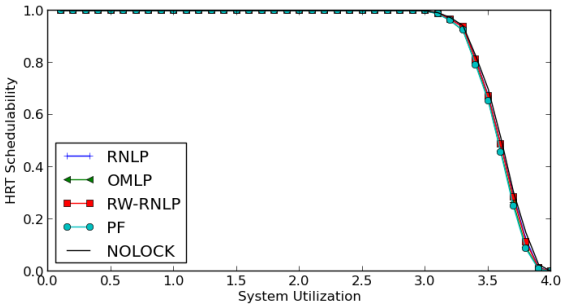

Figure 404: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

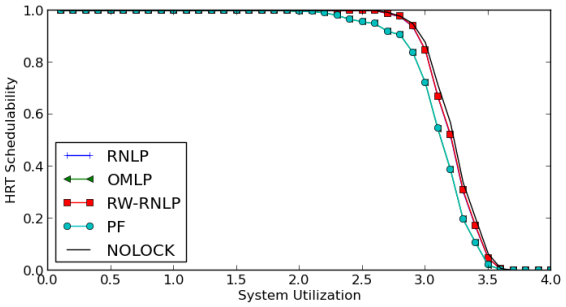

Figure 405: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

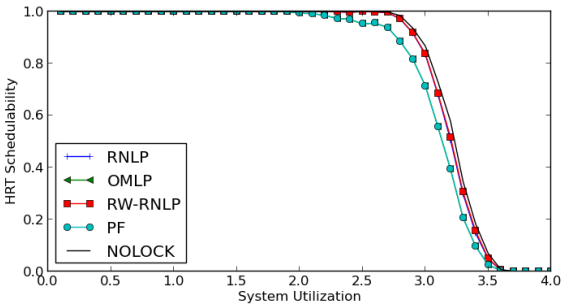

Figure 406: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

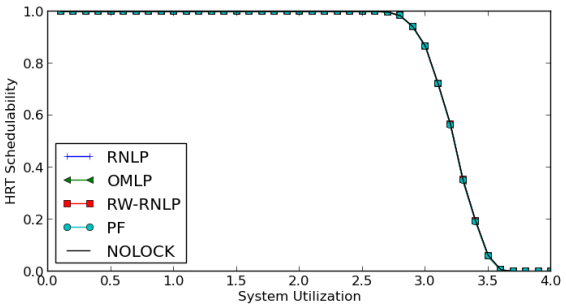

Figure 407: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

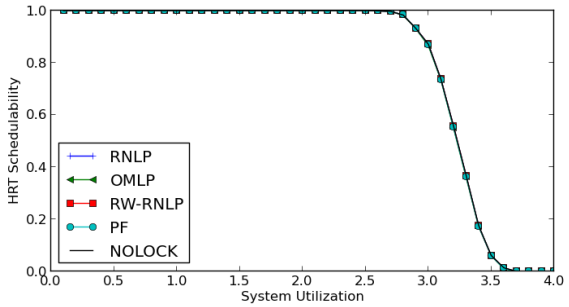

Figure 408: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

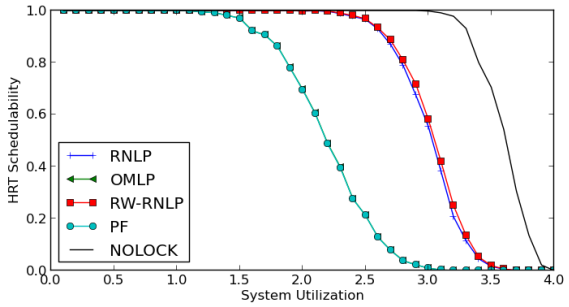

Figure 409: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

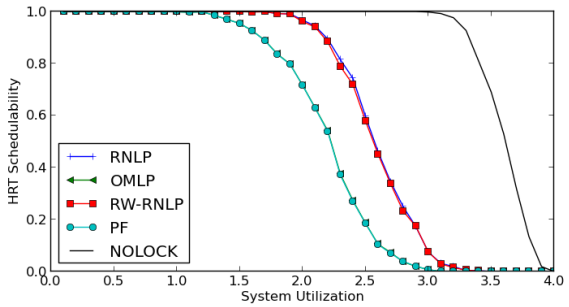

Figure 410: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

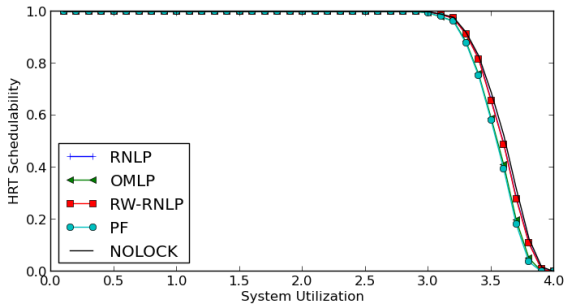

Figure 411: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

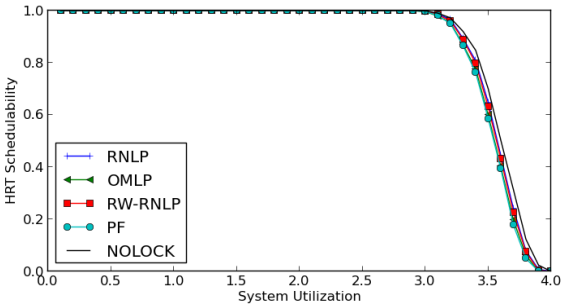

Figure 412: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

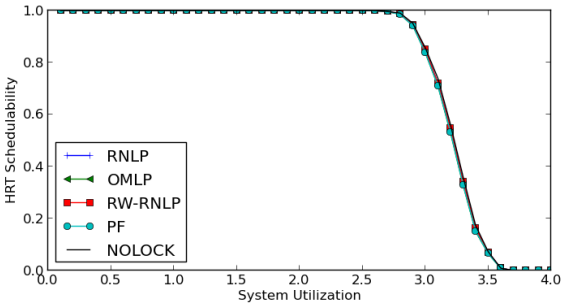

Figure 413: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

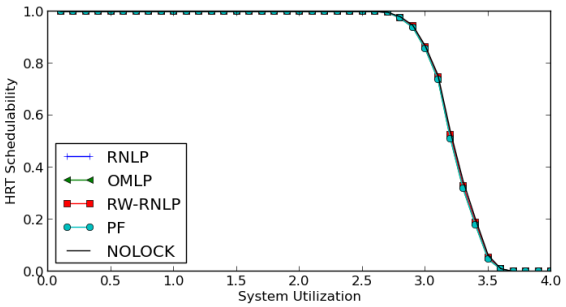

Figure 414: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

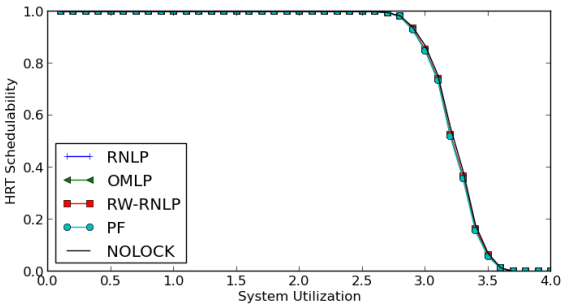

Figure 415: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

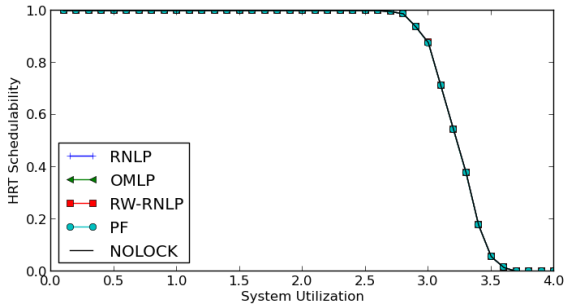

Figure 416: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

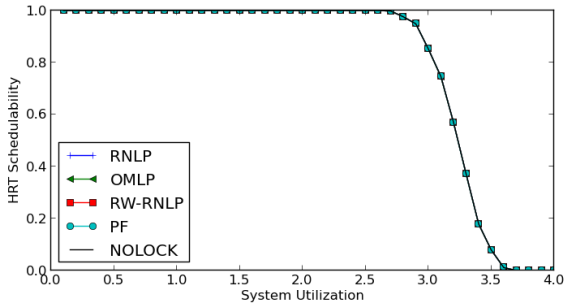

Figure 417: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

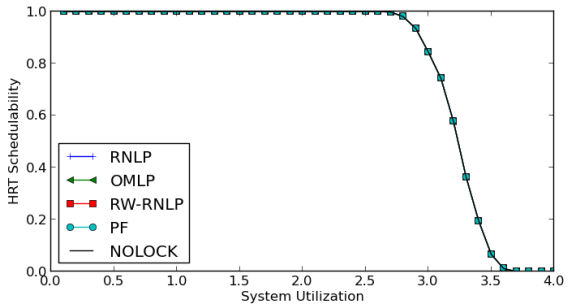

Figure 418: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

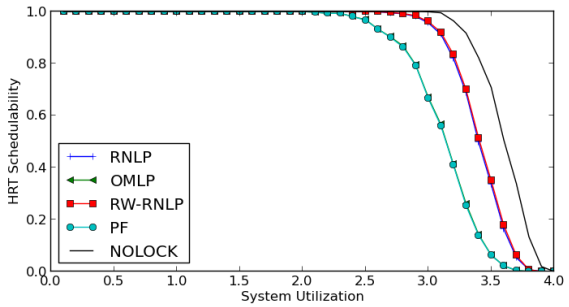

Figure 419: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

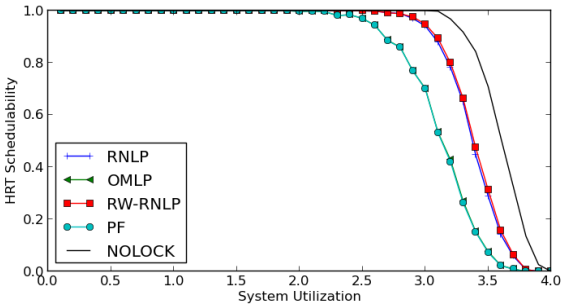

Figure 420: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

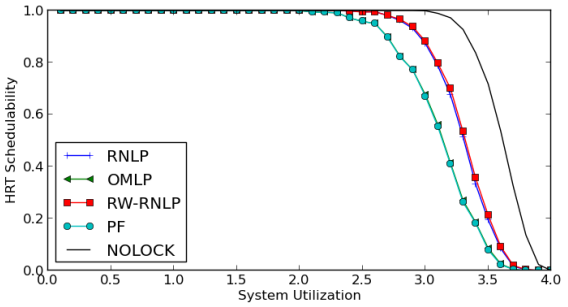

Figure 421: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

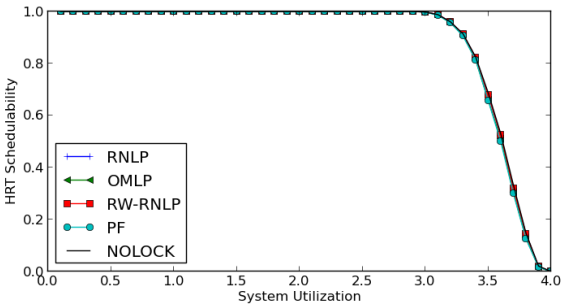

Figure 422: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

Figure 423: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

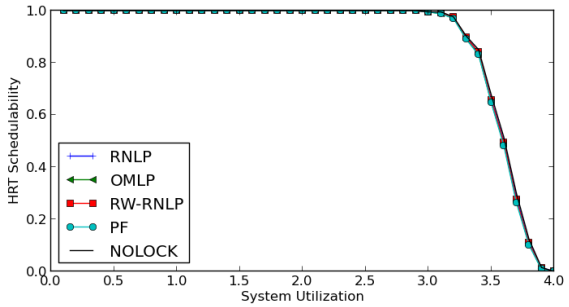

Figure 424: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

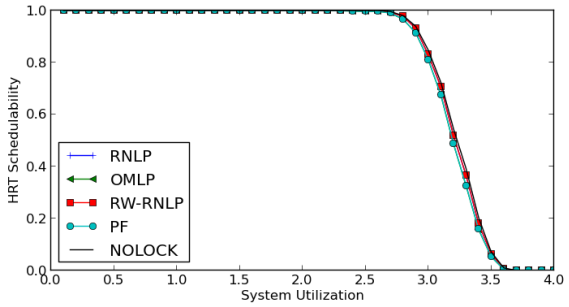

Figure 425: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

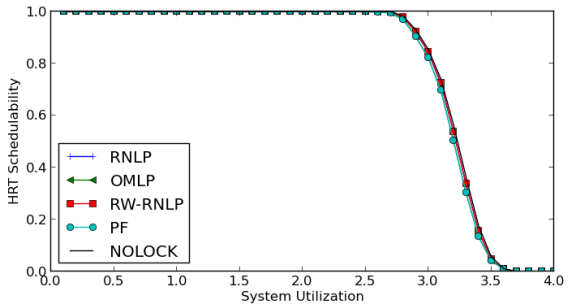

Figure 426: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

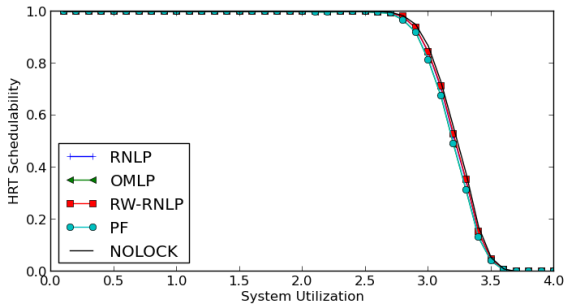

Figure 427: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

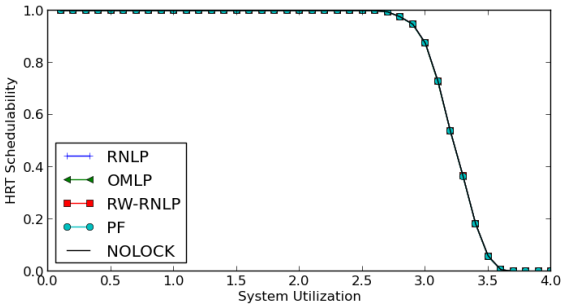

Figure 428: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

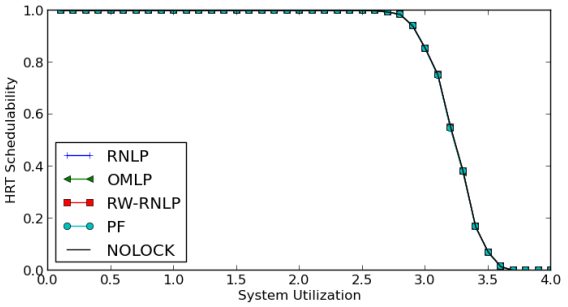

Figure 429: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

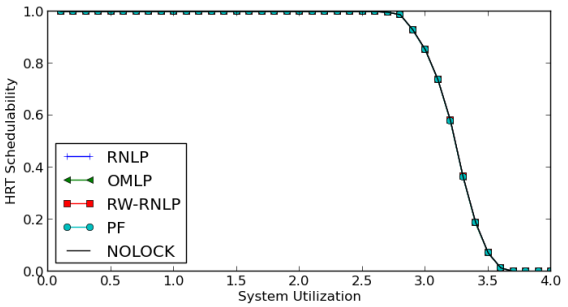

Figure 430: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

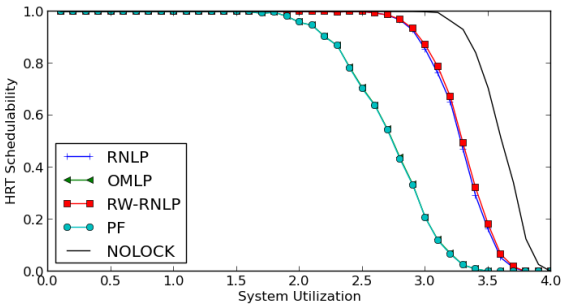

Figure 431: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

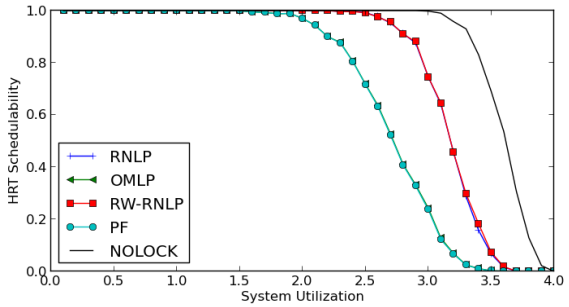

Figure 432: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

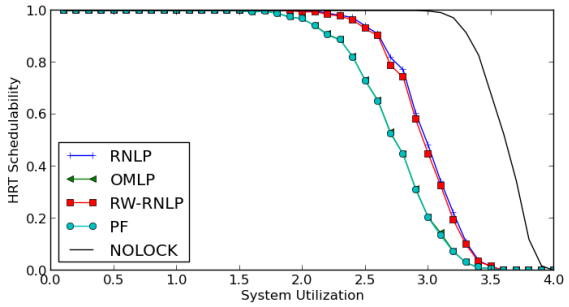

Figure 433: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

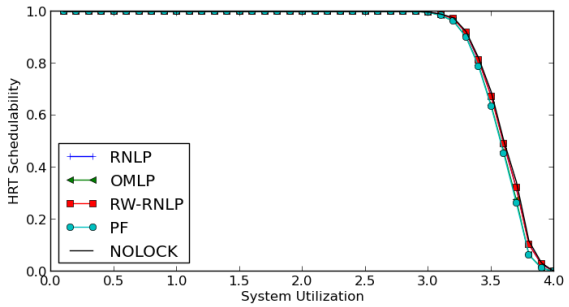

Figure 434: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

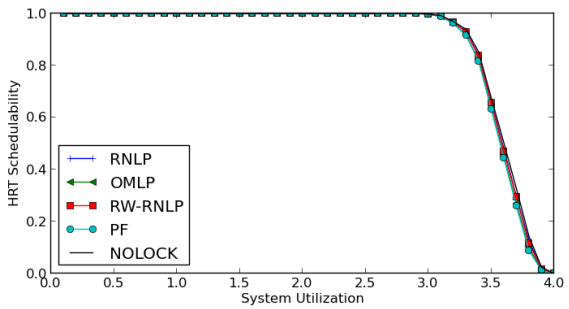

Figure 435: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

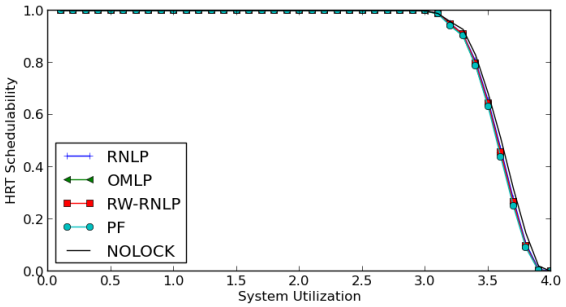

Figure 436: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

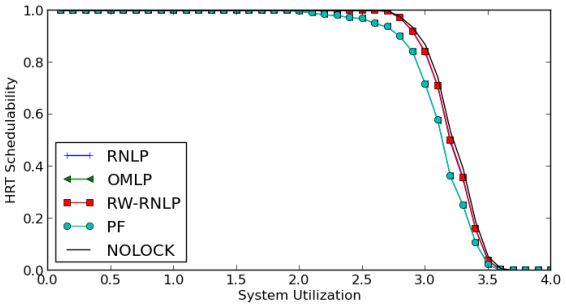

Figure 437: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

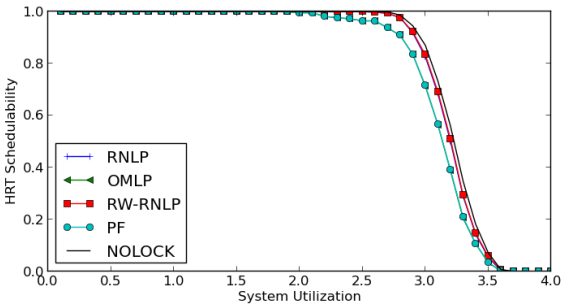

Figure 438: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

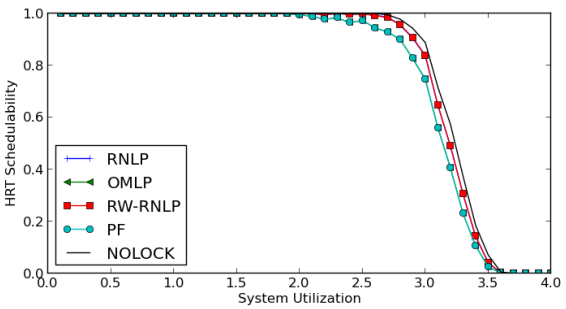

Figure 439: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

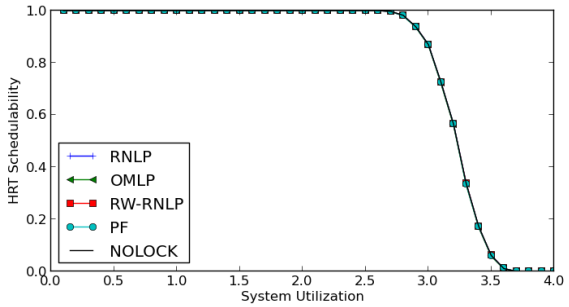

Figure 440: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

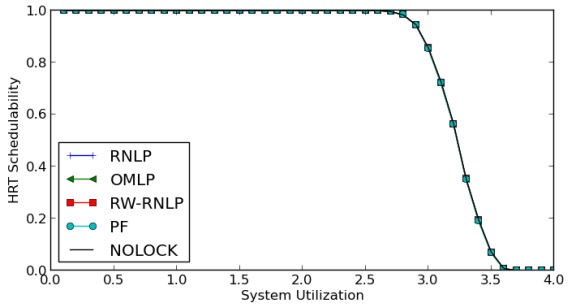

Figure 441: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

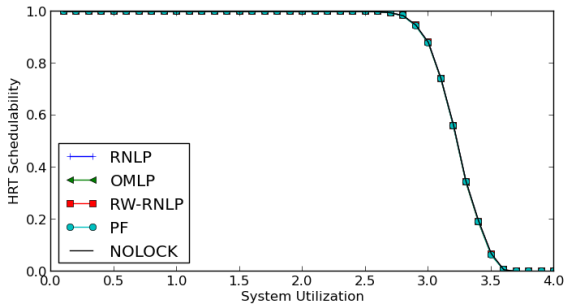

Figure 442: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

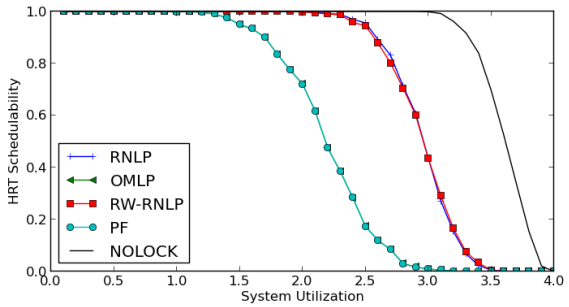

Figure 443: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

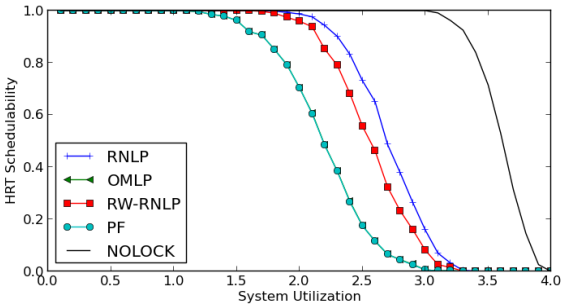

Figure 444: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

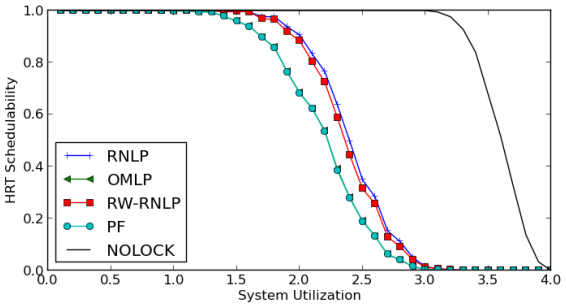

Figure 445: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

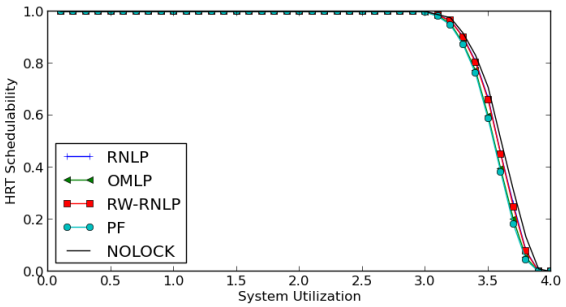

Figure 446: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

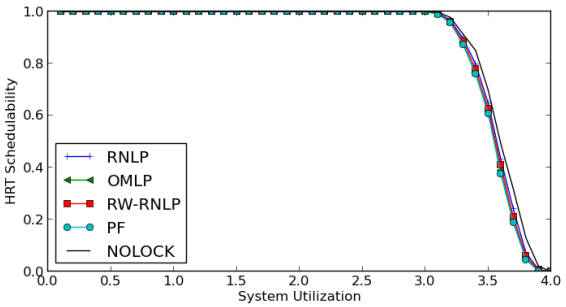

Figure 447: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

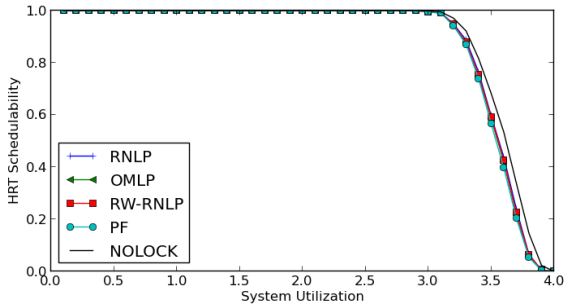

Figure 448: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

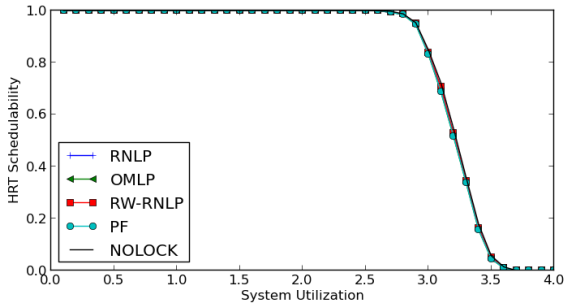

Figure 449: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

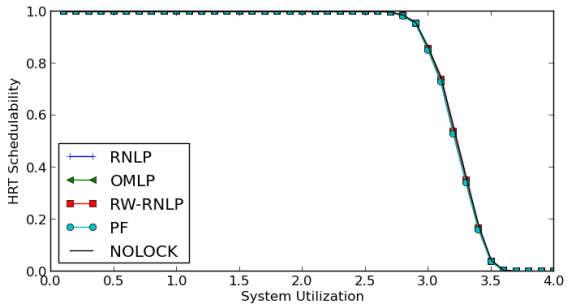

Figure 450: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

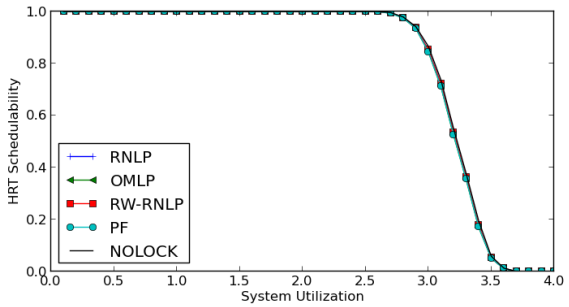

Figure 451: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

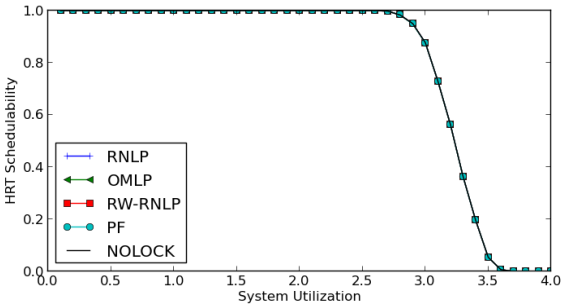

Figure 452: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

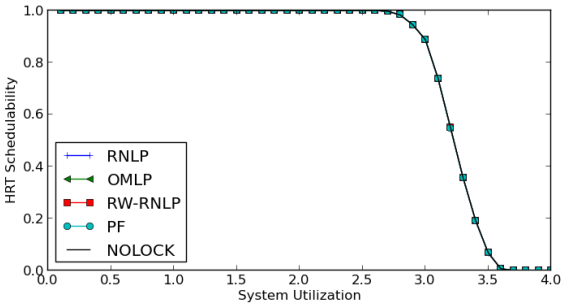

Figure 453: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

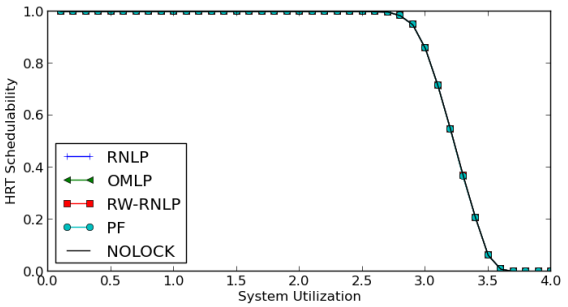

Figure 454: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

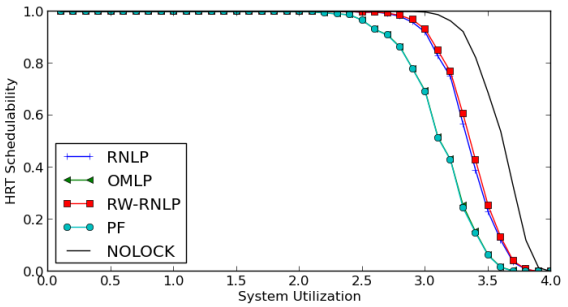

Figure 455: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

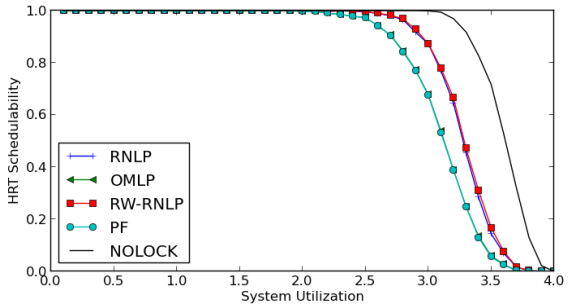

Figure 456: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

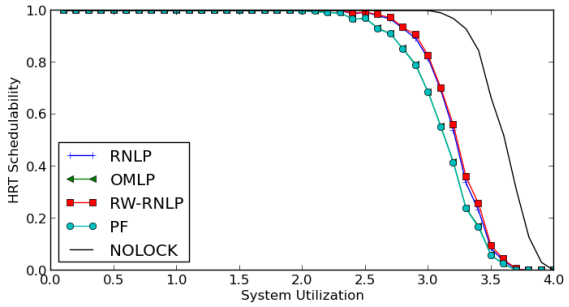

Figure 457: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

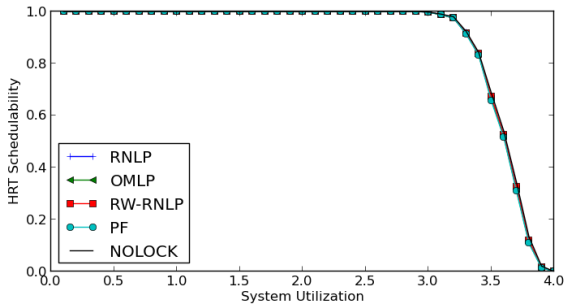

Figure 458: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

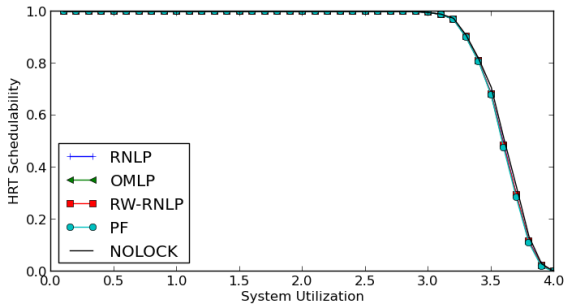

Figure 459: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

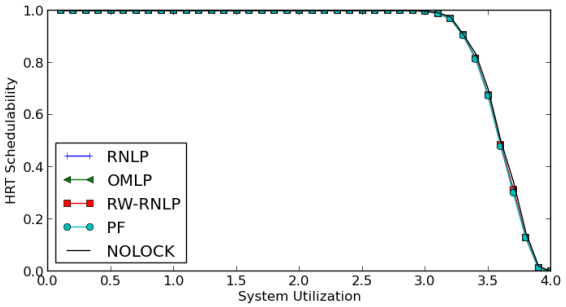

Figure 460: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

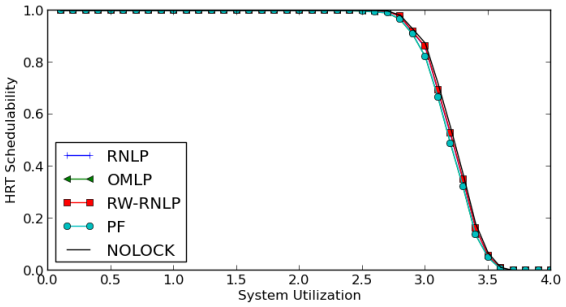

Figure 461: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

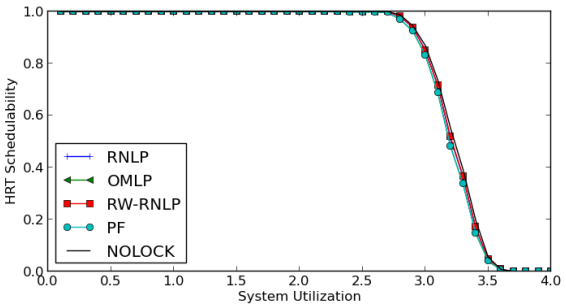

Figure 462: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

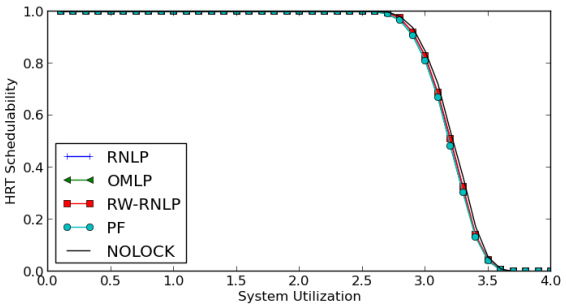

Figure 463: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

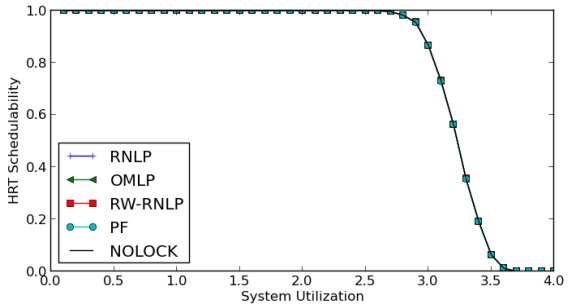

Figure 464: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

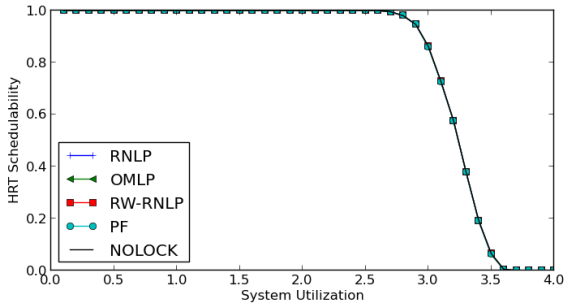

Figure 465: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

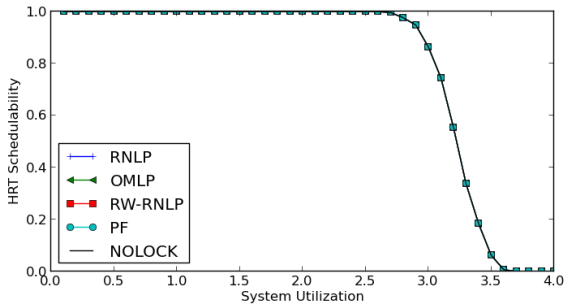

Figure 466: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

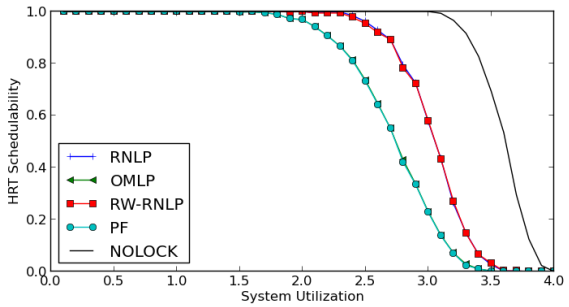

Figure 467: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

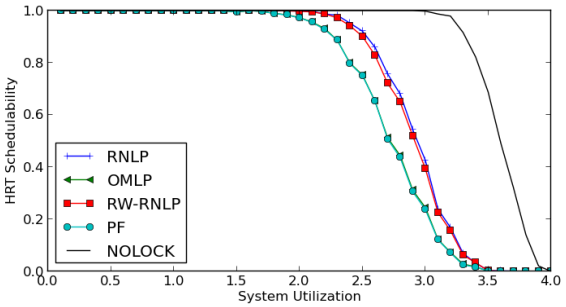

Figure 468: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

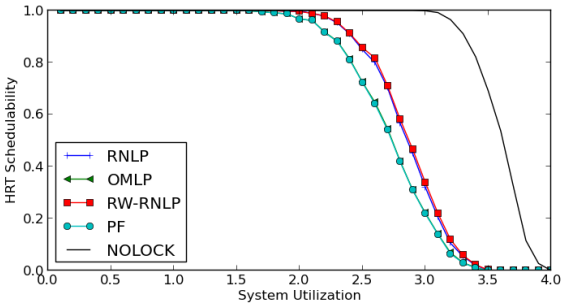

Figure 469: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

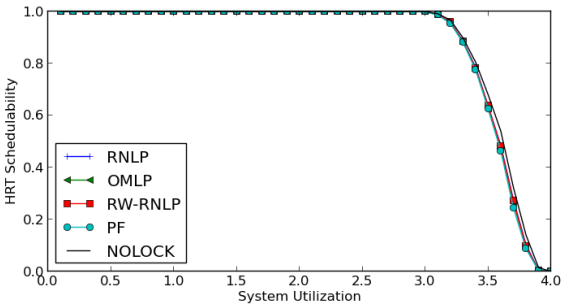

Figure 470: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

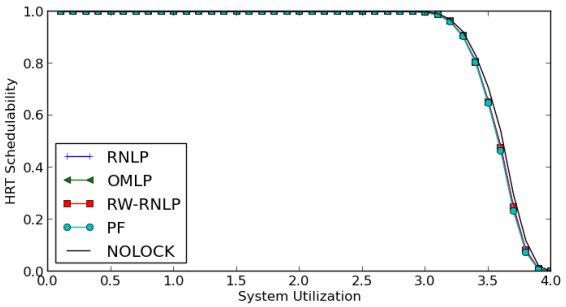

Figure 471: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

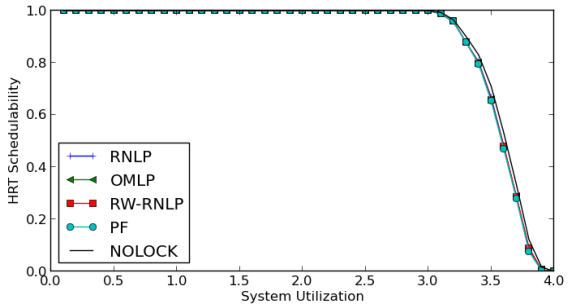

Figure 472: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

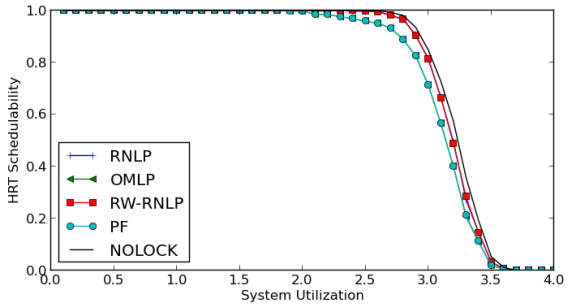

Figure 473: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

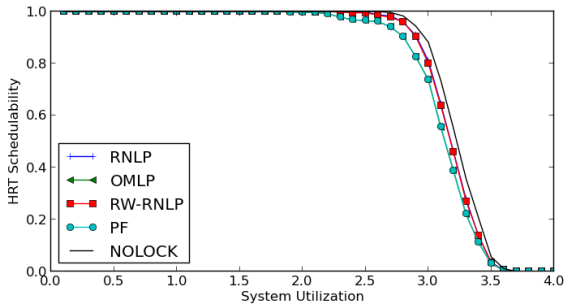

Figure 474: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

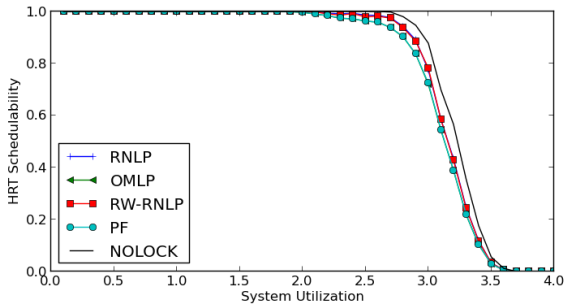

Figure 475: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

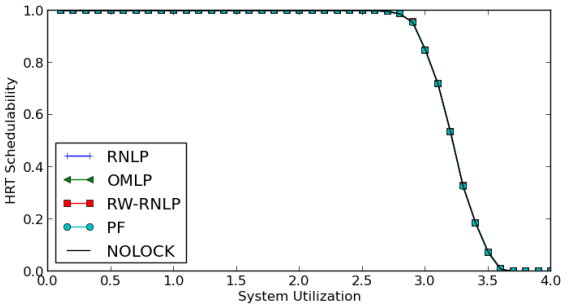

Figure 476: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

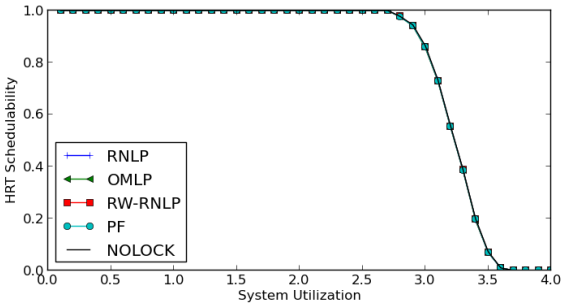

Figure 477: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

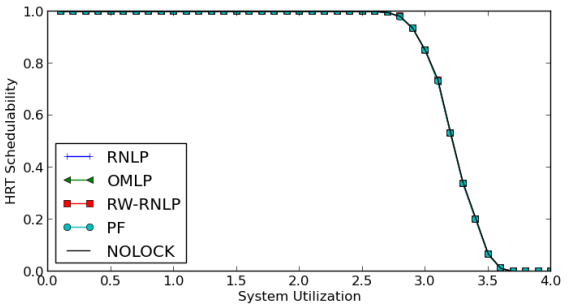

Figure 478: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

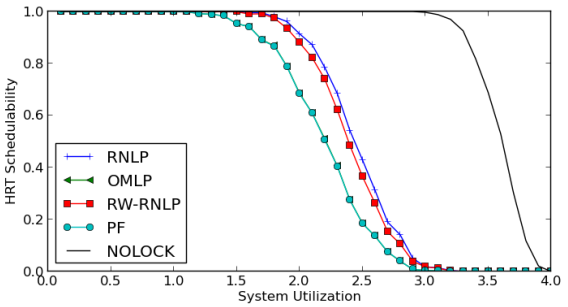

Figure 479: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

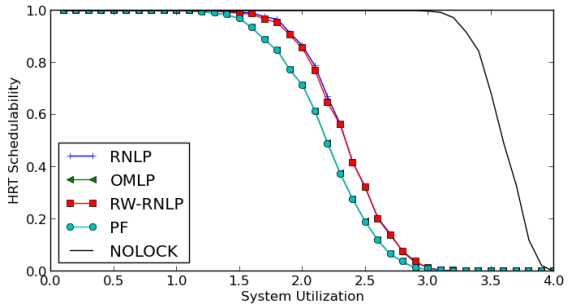

Figure 480: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

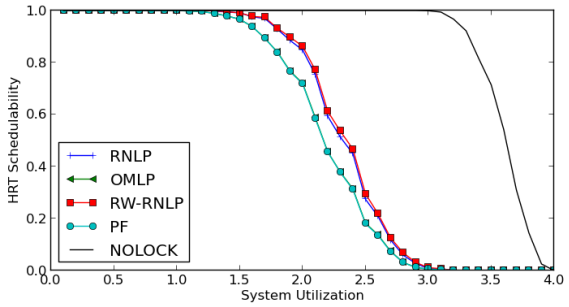

Figure 481: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

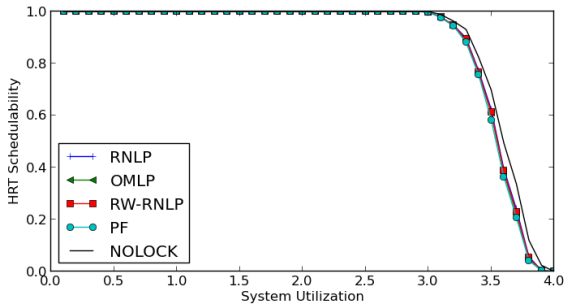

Figure 482: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

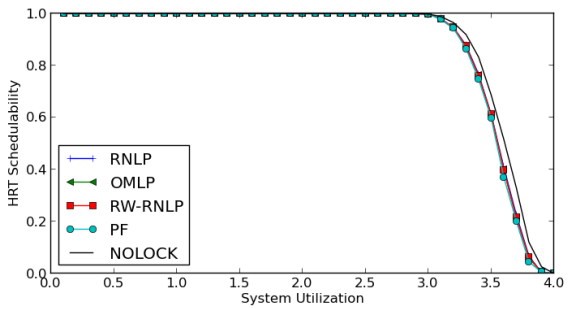

Figure 483: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

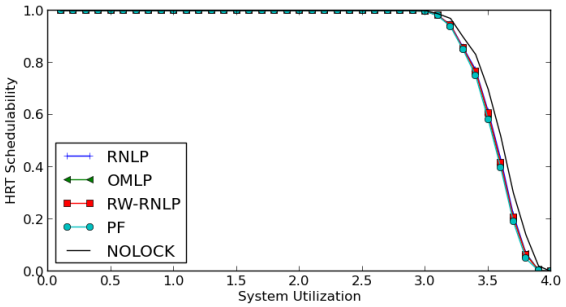

Figure 484: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

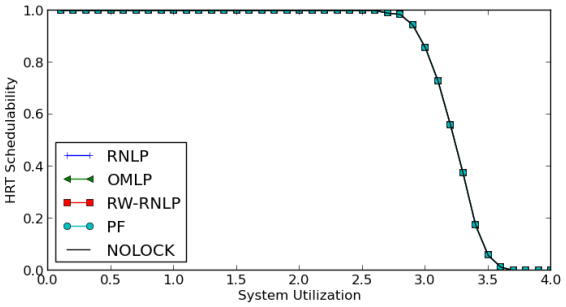

Figure 485: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

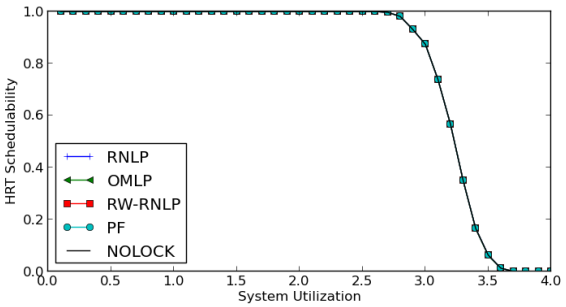

Figure 486: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

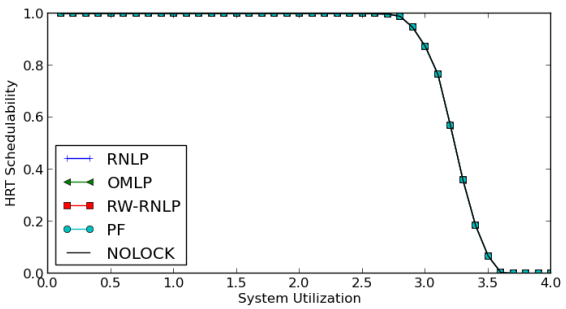

Figure 487: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

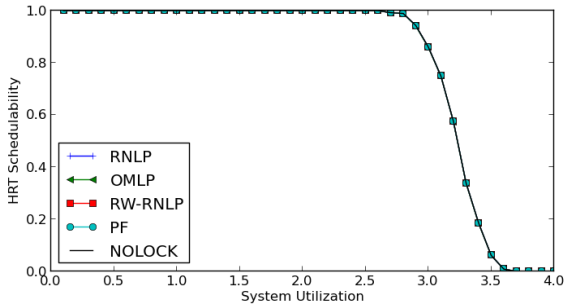

Figure 488: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

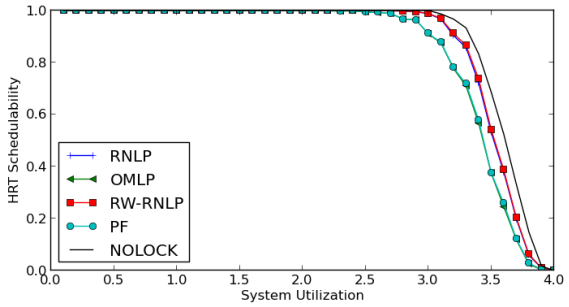

Figure 489: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

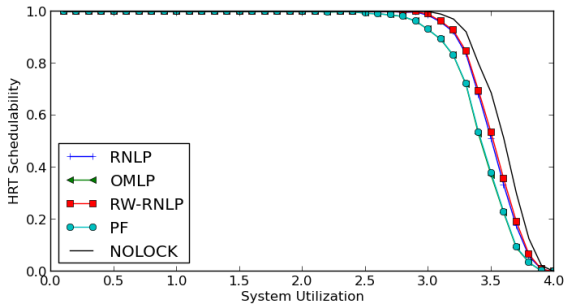

Figure 490: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

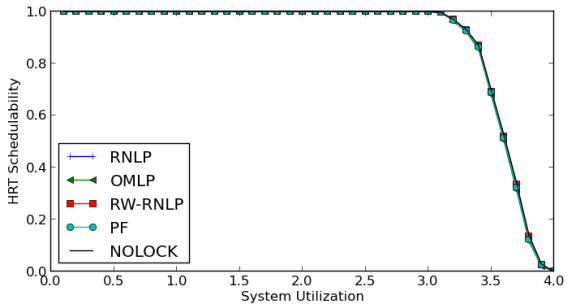

Figure 491: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

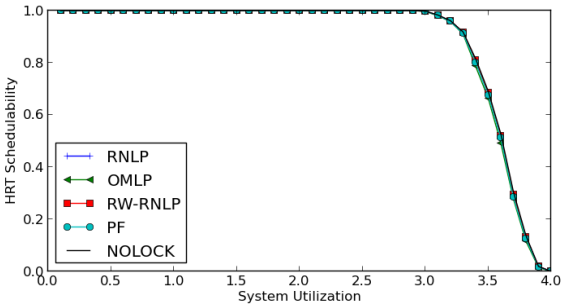

Figure 492: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

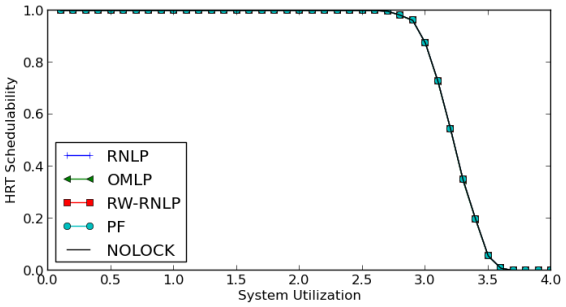

Figure 493: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

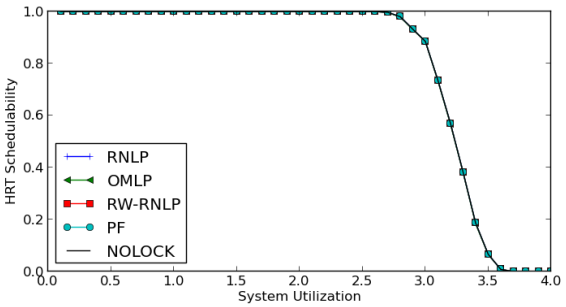

Figure 494: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

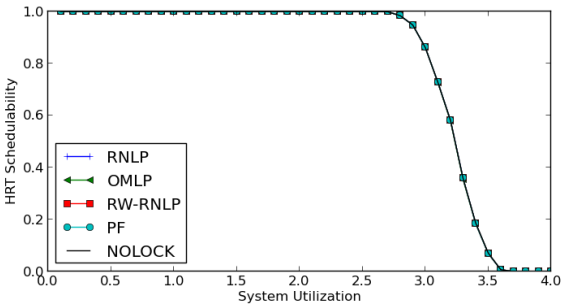

Figure 495: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

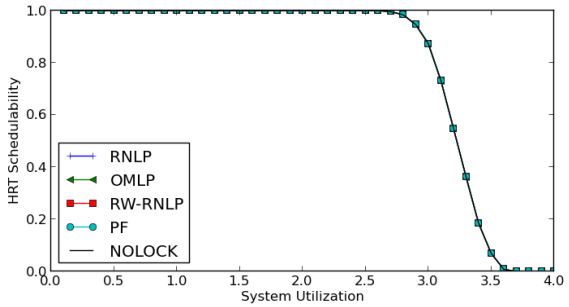

Figure 496: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

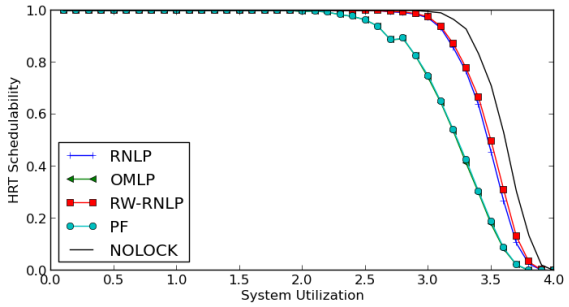

Figure 497: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

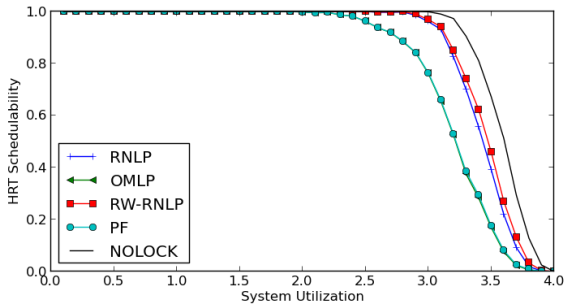

Figure 498: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

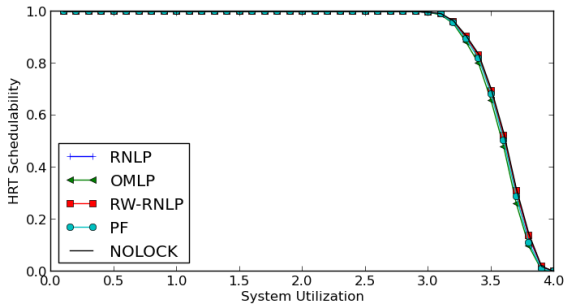

Figure 499: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

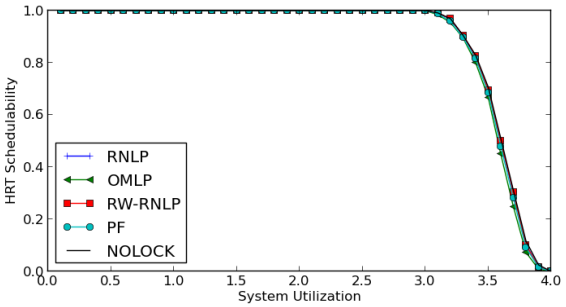

Figure 500: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

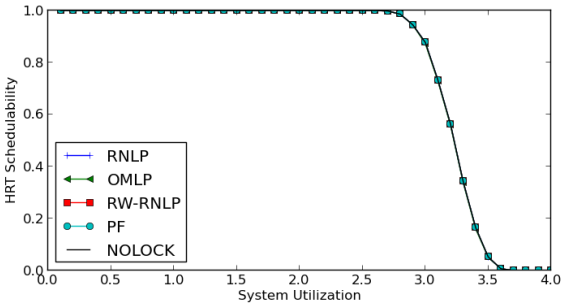

Figure 501: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

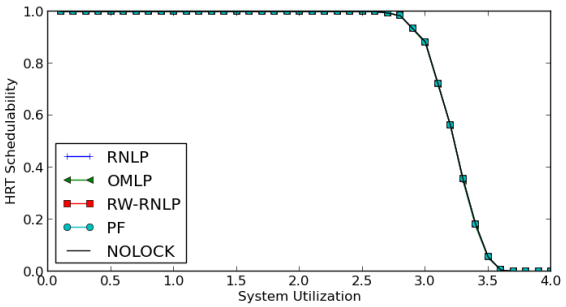

Figure 502: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

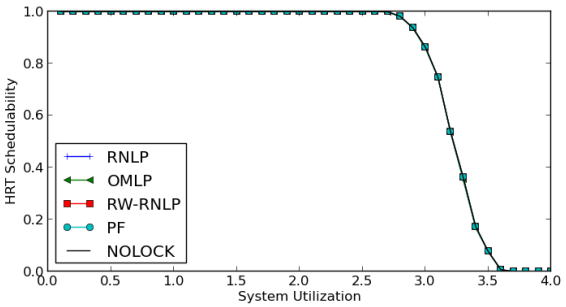

Figure 503: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

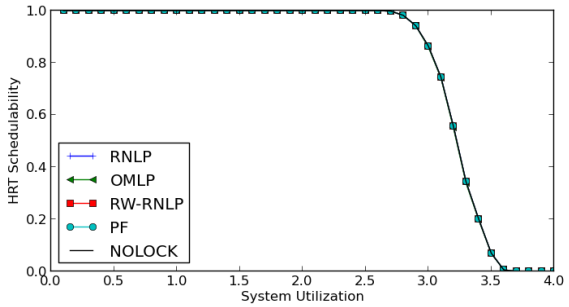

Figure 504: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

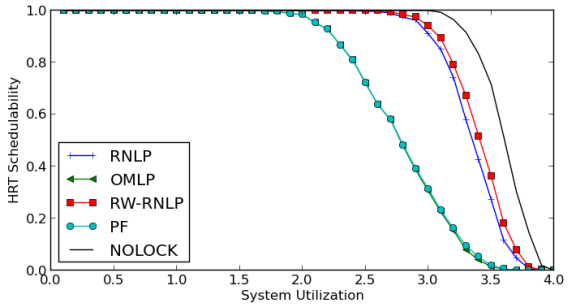

Figure 505: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

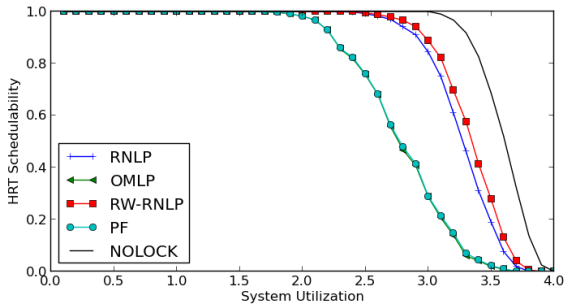

Figure 506: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

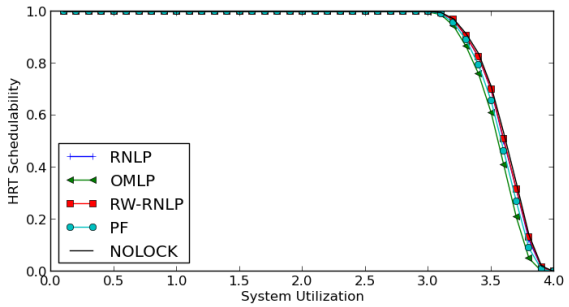

Figure 507: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

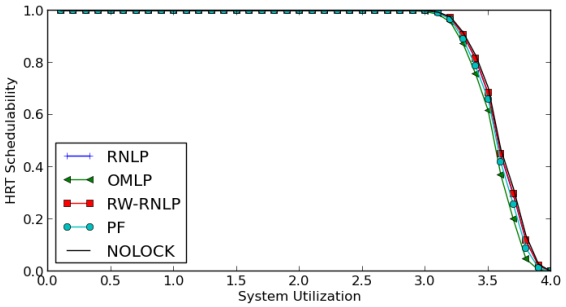

Figure 508: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

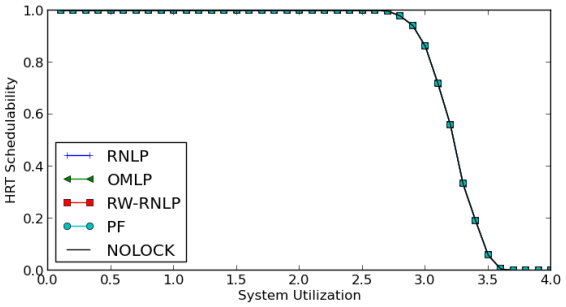

Figure 509: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

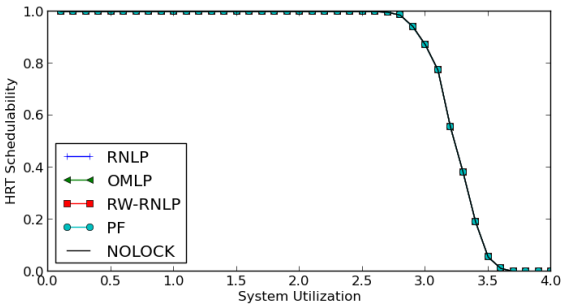

Figure 510: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

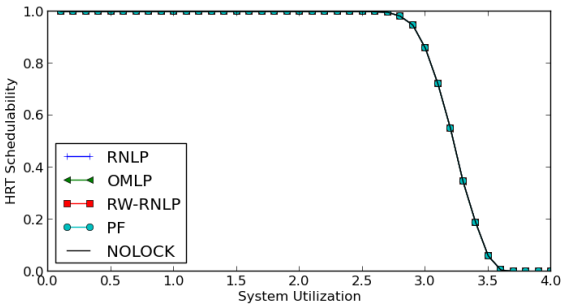

Figure 511: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

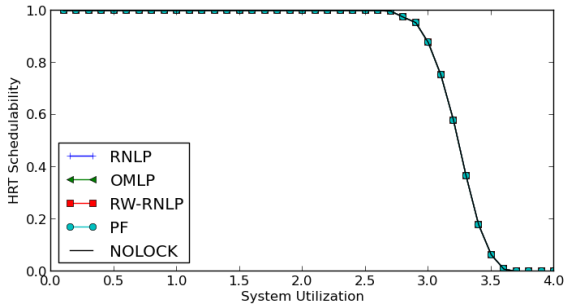

Figure 512: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

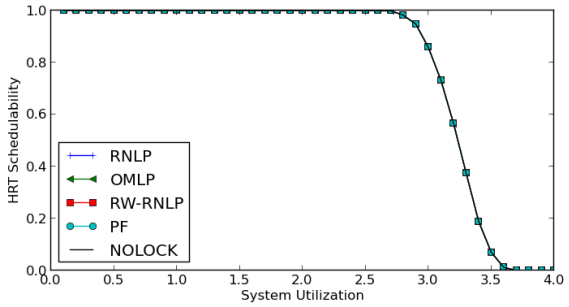

Figure 513: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

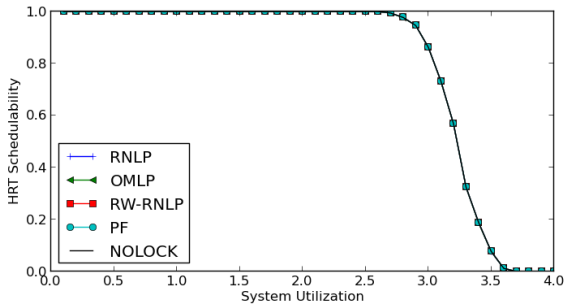

Figure 514: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

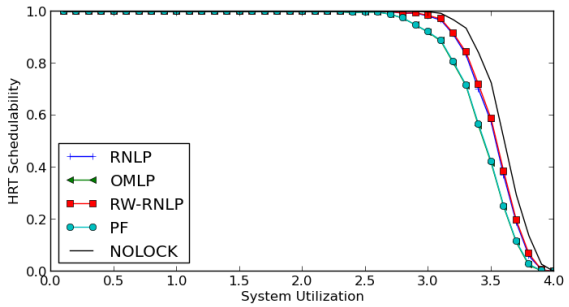

Figure 515: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

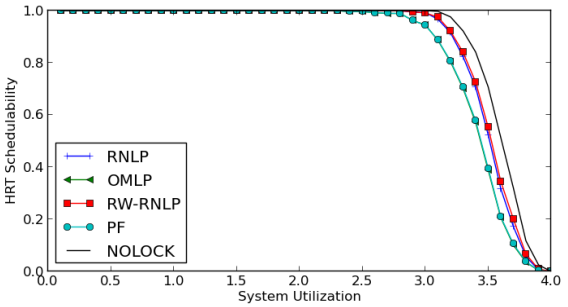

Figure 516: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

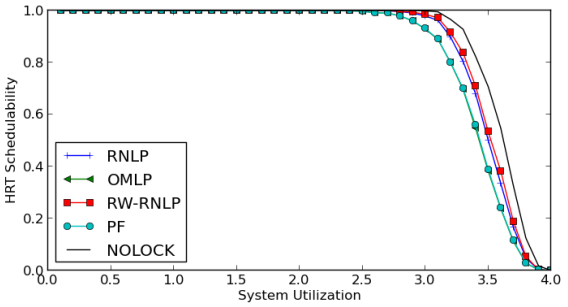

Figure 517: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

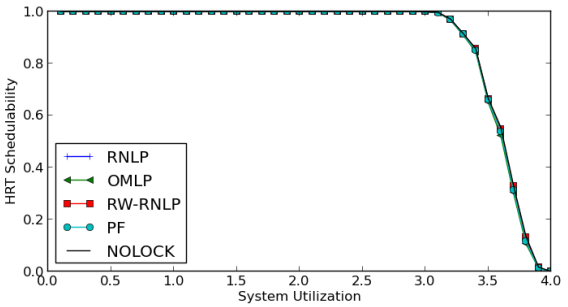

Figure 518: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

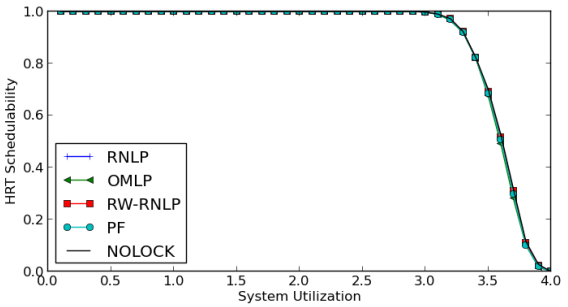

Figure 519: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

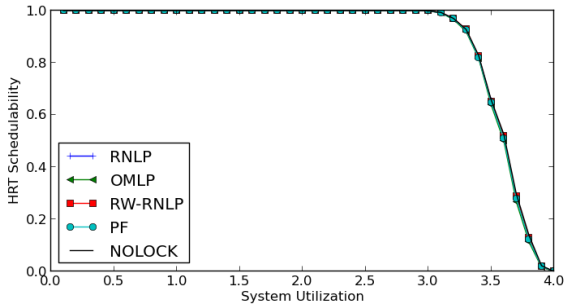

Figure 520: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

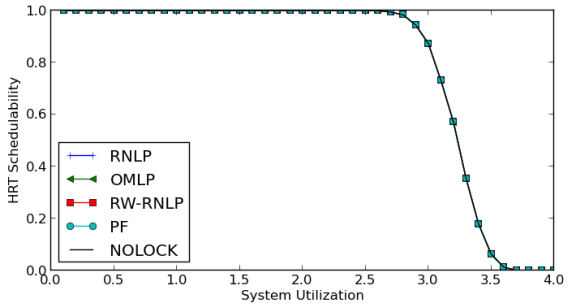

Figure 521: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

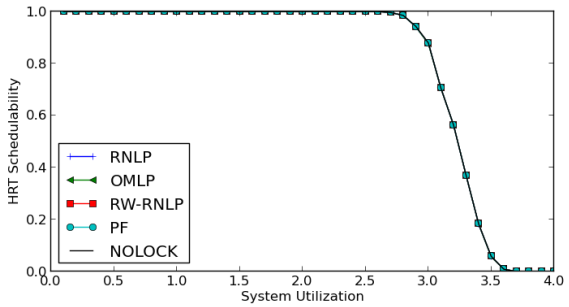

Figure 522: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

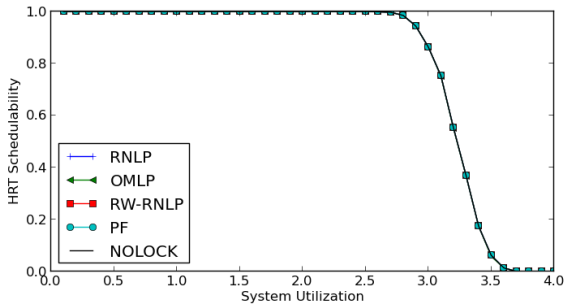

Figure 523: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

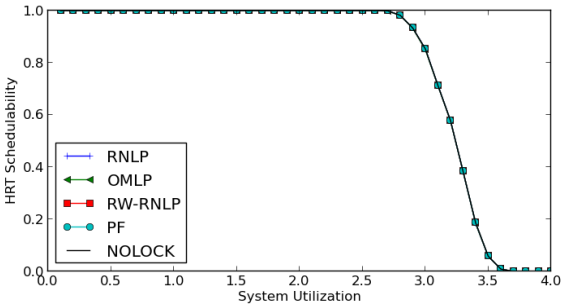

Figure 524: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

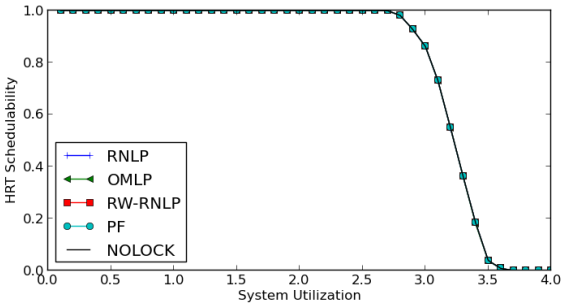

Figure 525: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

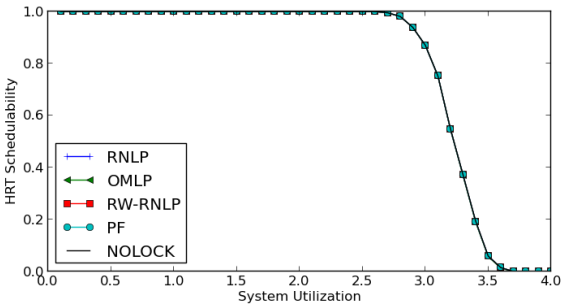

Figure 526: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

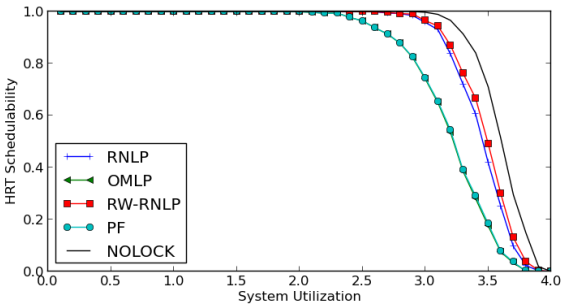

Figure 527: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

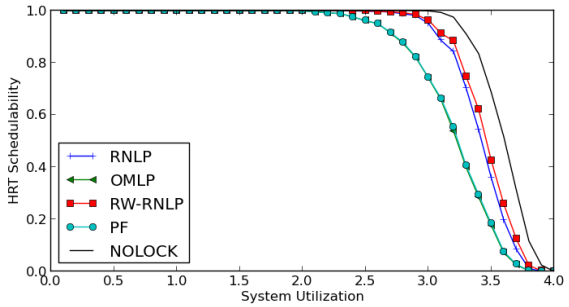

Figure 528: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

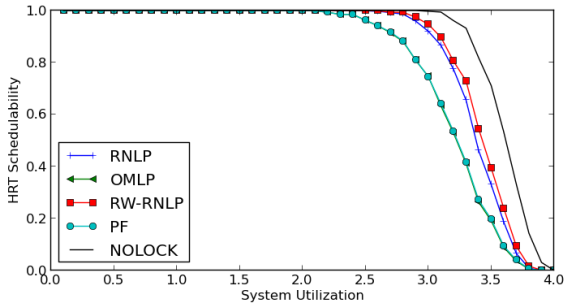

Figure 529: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

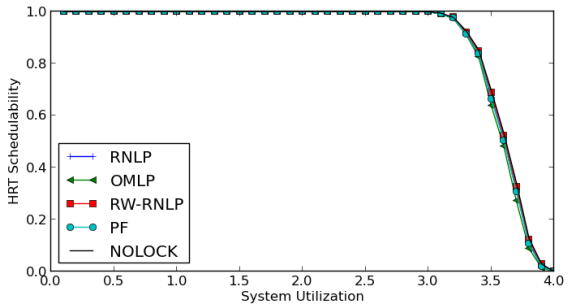

Figure 530: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

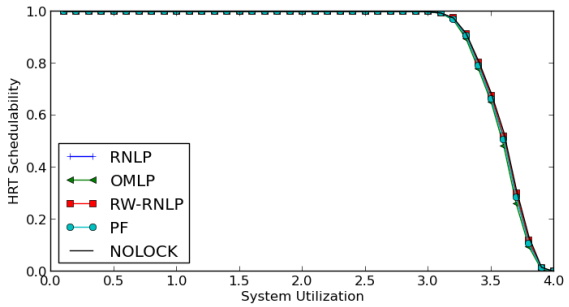

Figure 531: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

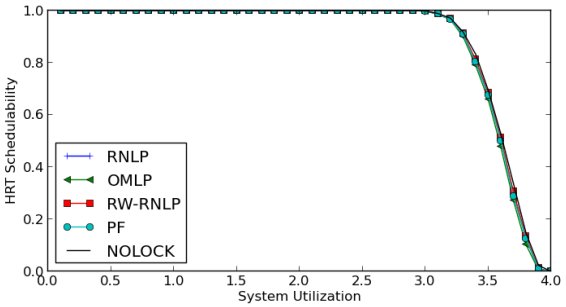

Figure 532: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

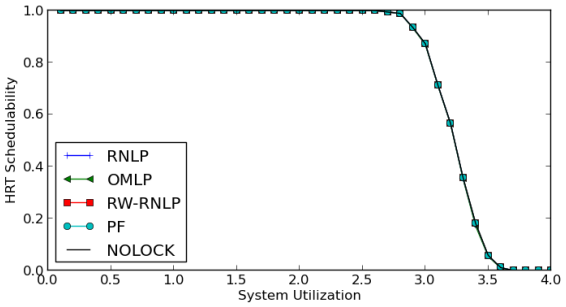

Figure 533: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

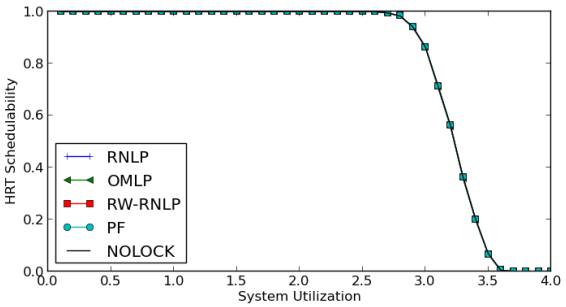

Figure 534: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

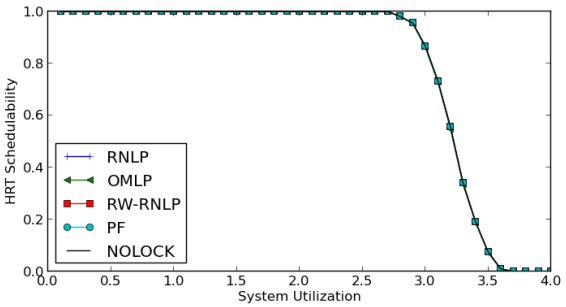

Figure 535: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

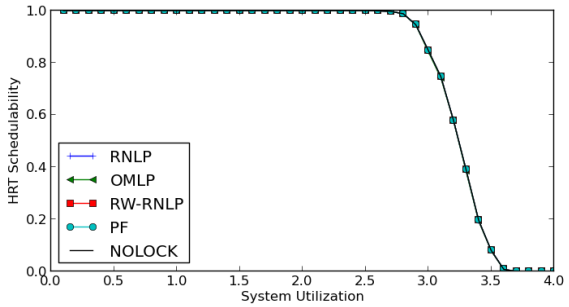

Figure 536: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

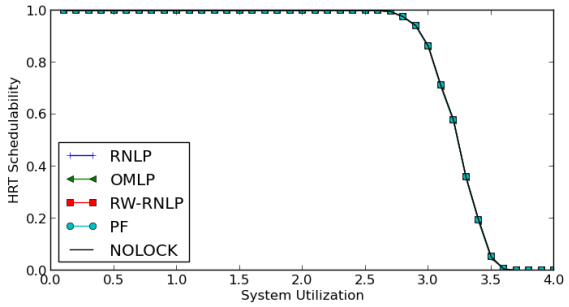

Figure 537: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

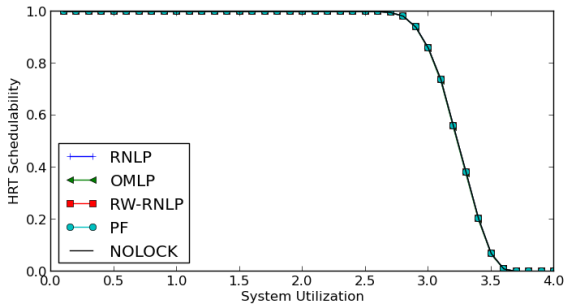

Figure 538: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

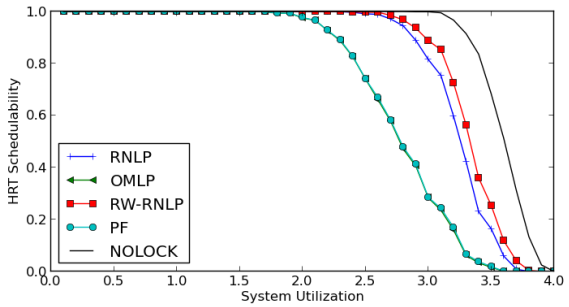

Figure 539: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

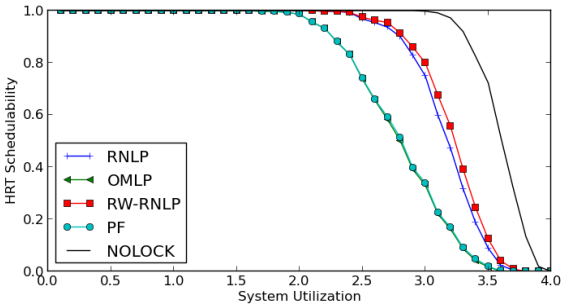

Figure 540: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

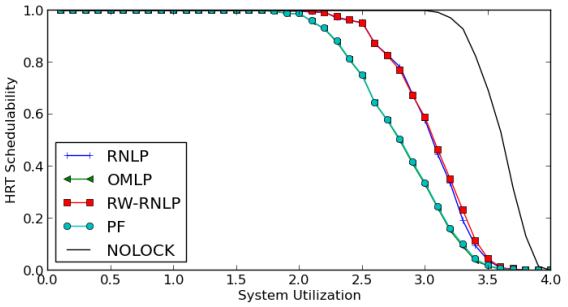

Figure 541: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

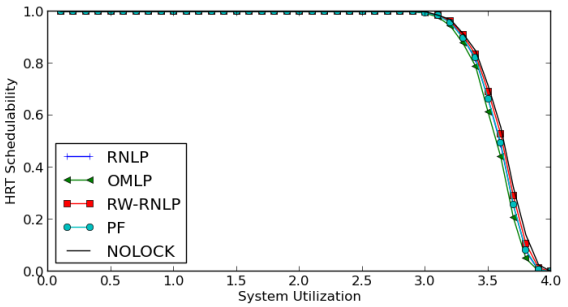

Figure 542: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

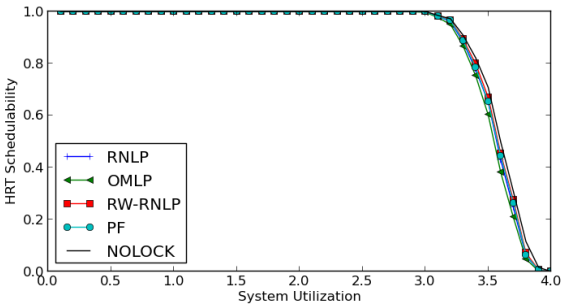

Figure 543: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

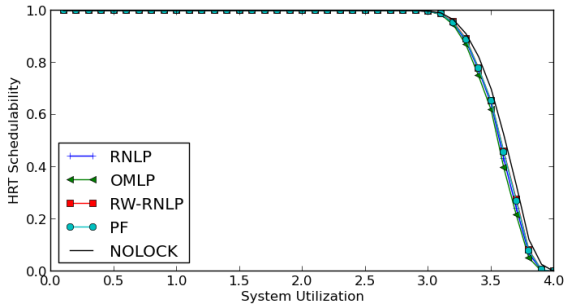

Figure 544: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

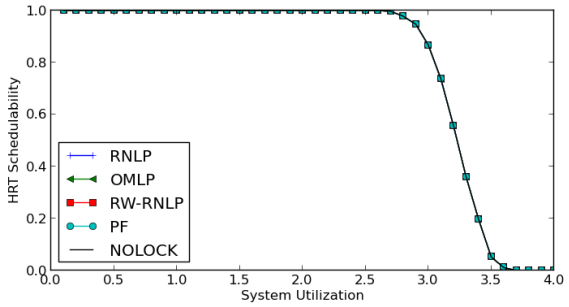

Figure 545: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

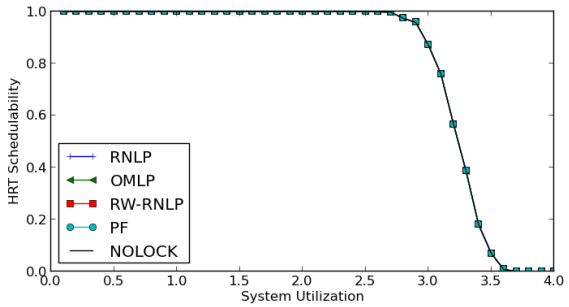

Figure 546: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

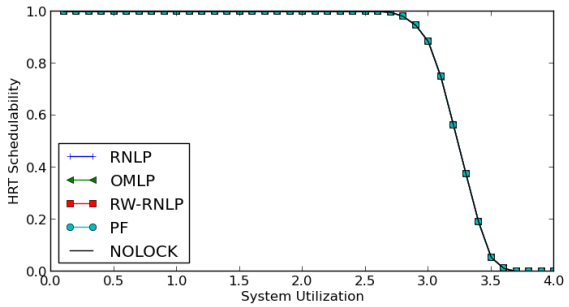

Figure 547: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

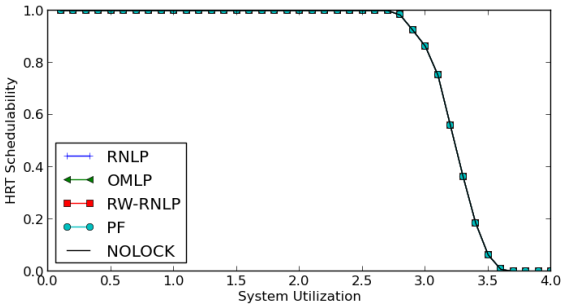

Figure 548: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

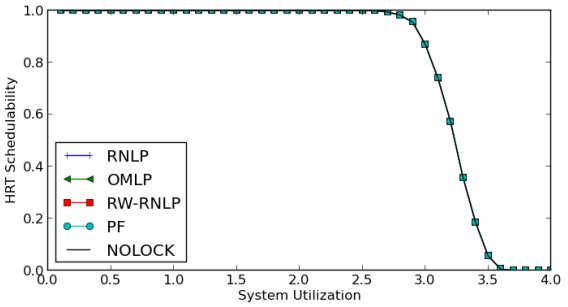

Figure 549: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

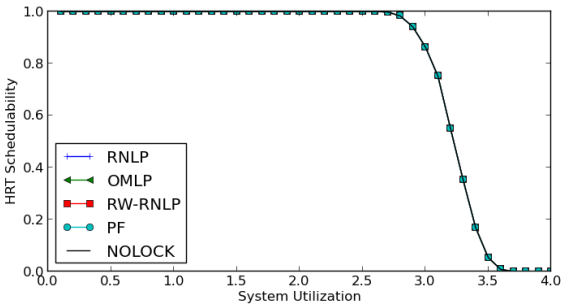

Figure 550: Period: uni-long, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

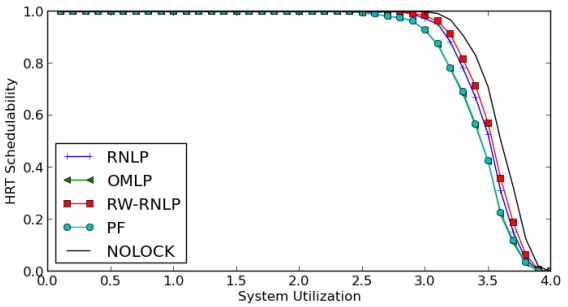

Figure 551: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

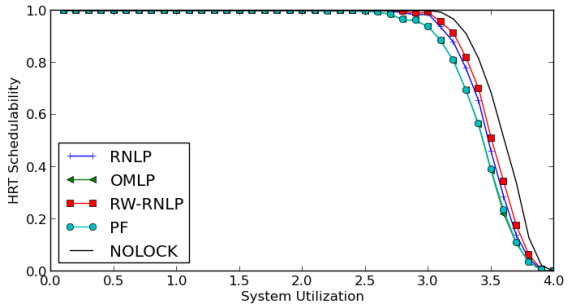

Figure 552: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

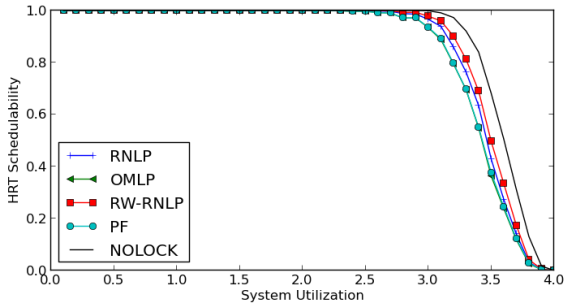

Figure 553: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

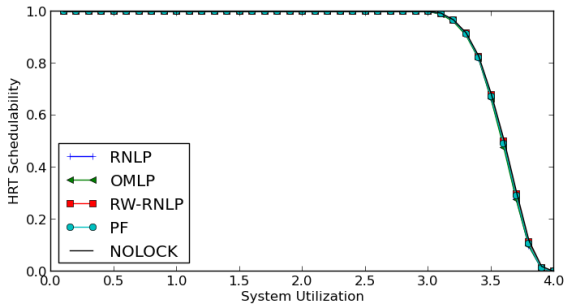

Figure 554: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

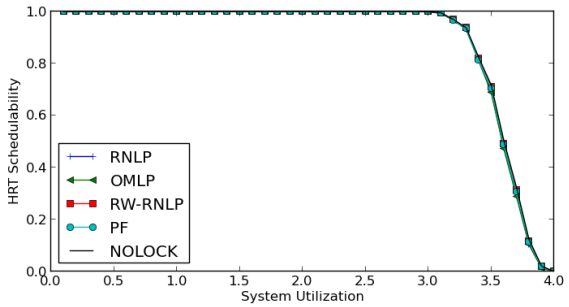

Figure 555: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

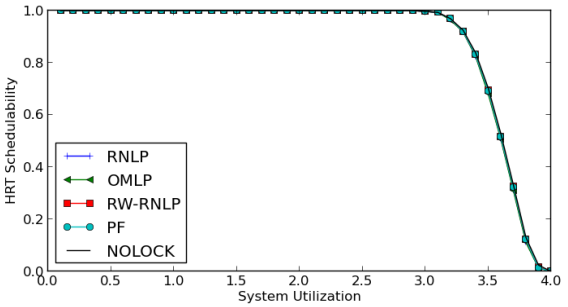

Figure 556: Period: uni-long, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

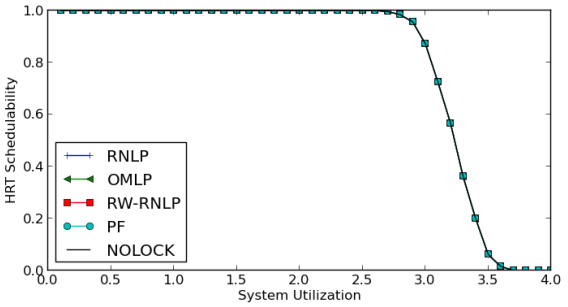

Figure 557: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

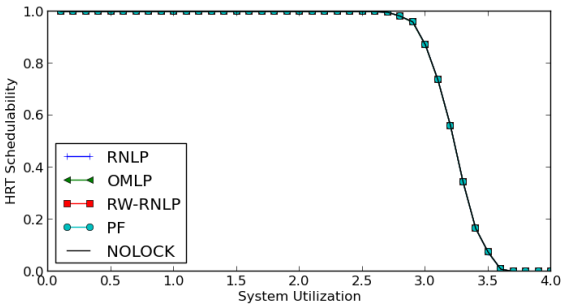

Figure 558: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

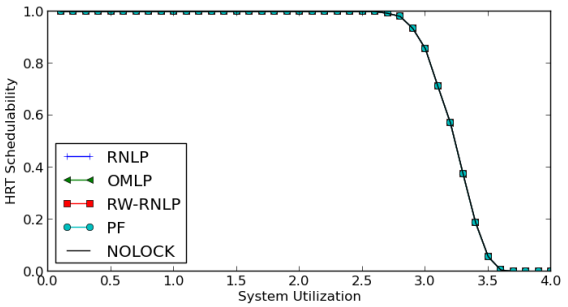

Figure 559: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

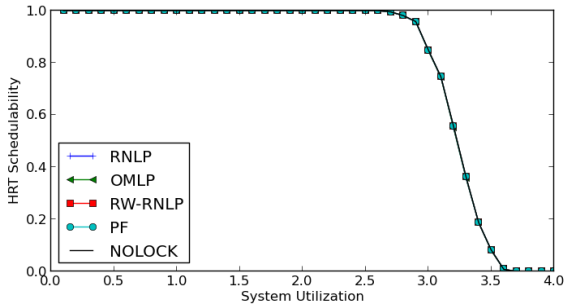

Figure 560: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

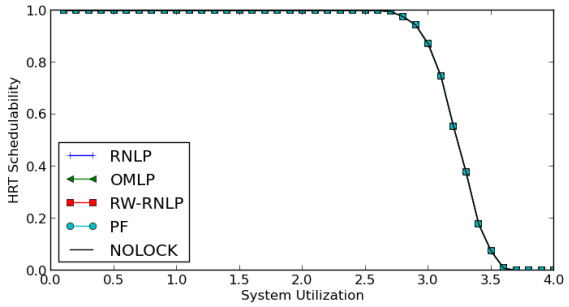

Figure 561: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

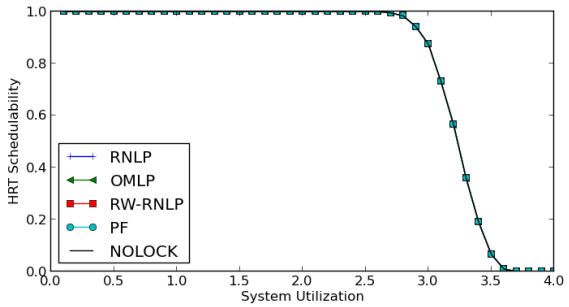

Figure 562: Period: uni-long, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

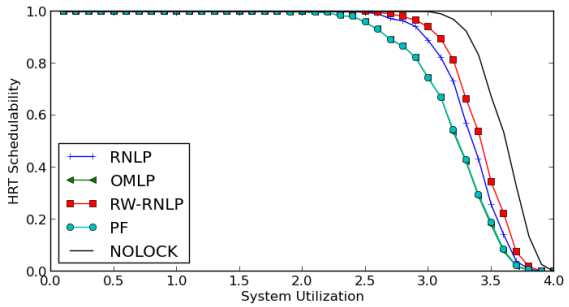

Figure 563: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

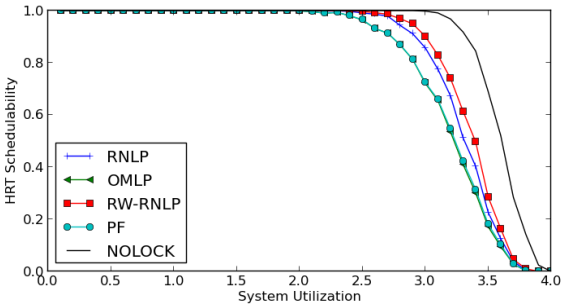

Figure 564: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

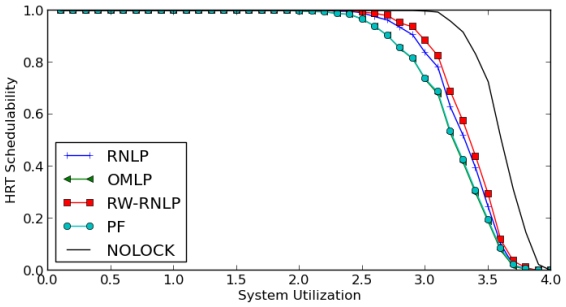

Figure 565: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

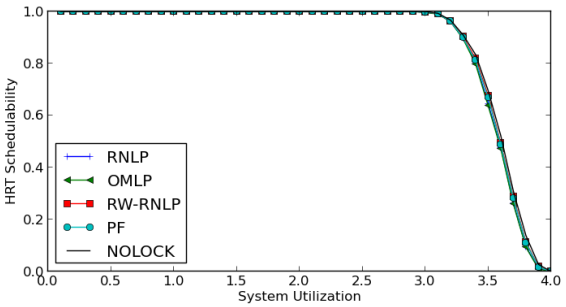

Figure 566: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

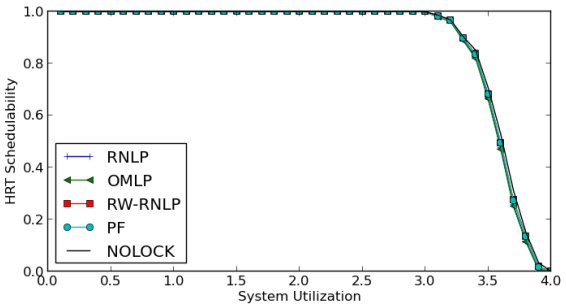

Figure 567: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

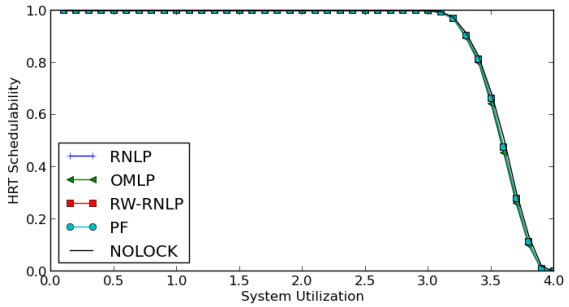

Figure 568: Period: uni-long, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

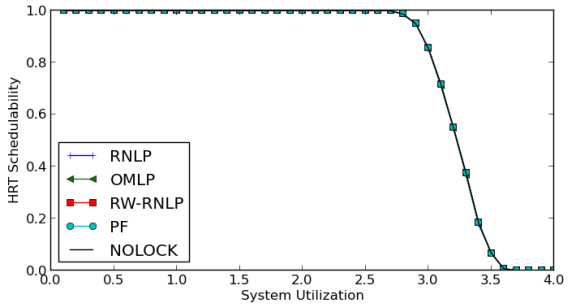

Figure 569: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

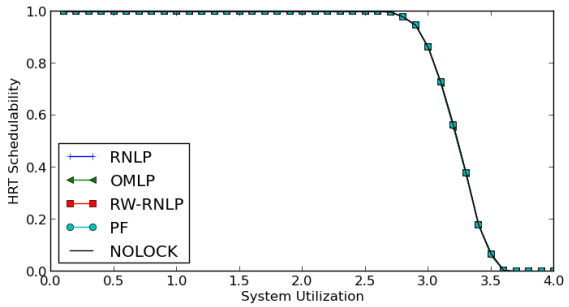

Figure 570: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

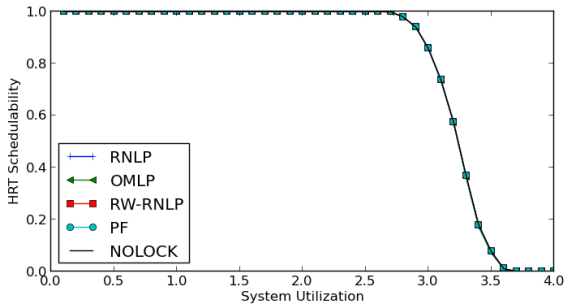

Figure 571: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

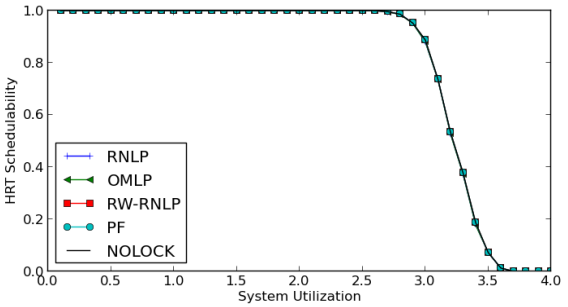

Figure 572: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

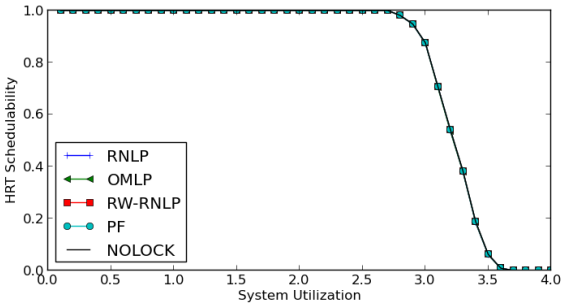

Figure 573: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

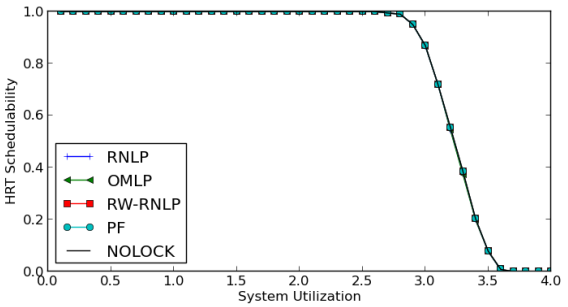

Figure 574: Period: uni-long, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

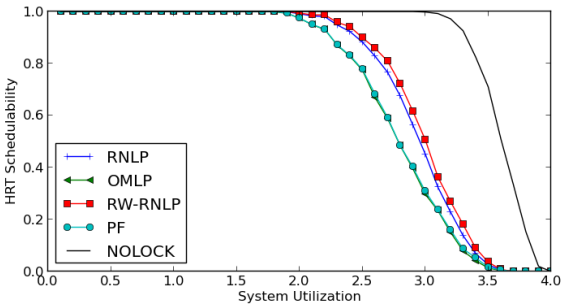

Figure 575: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

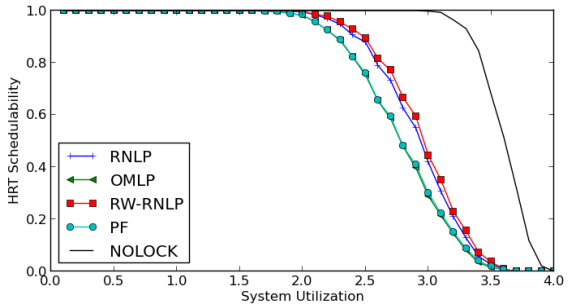

Figure 576: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

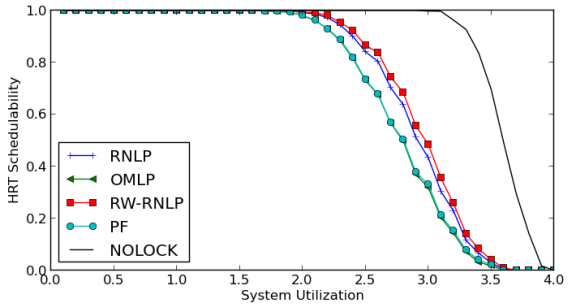

Figure 577: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

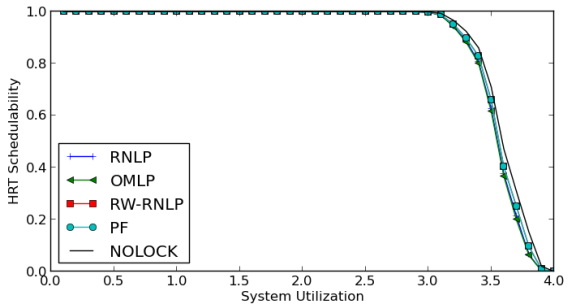

Figure 578: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

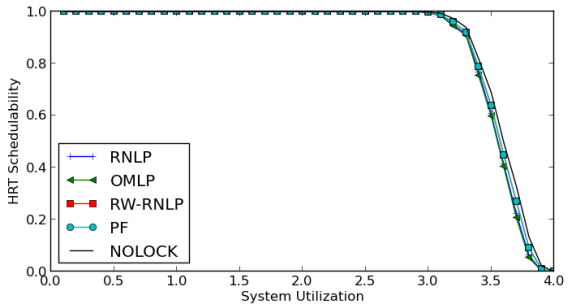

Figure 579: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

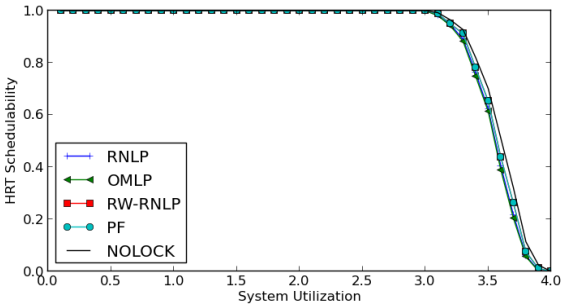

Figure 580: Period: uni-long, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

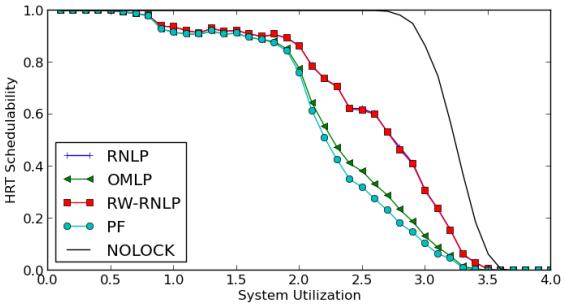

Figure 581: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

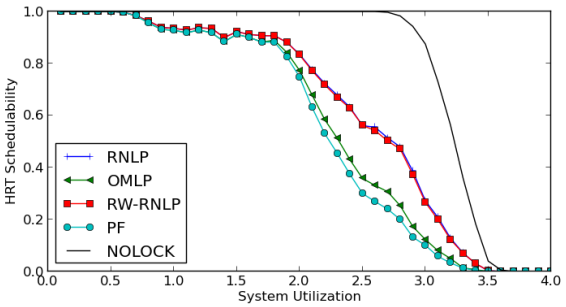

Figure 582: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

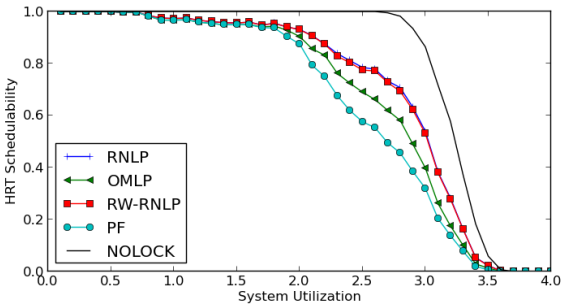

Figure 583: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

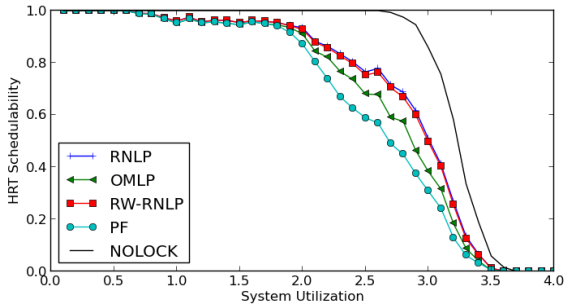

Figure 584: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

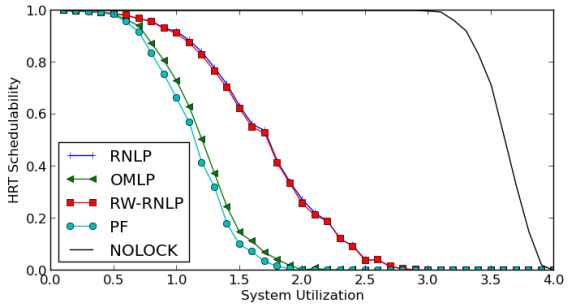

Figure 585: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

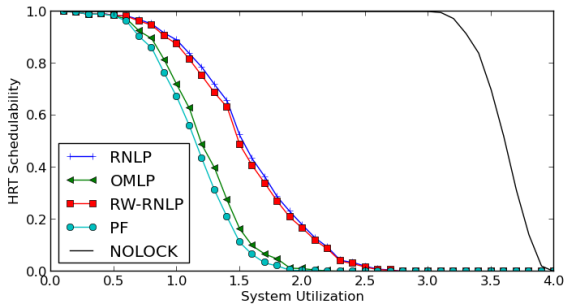

Figure 586: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

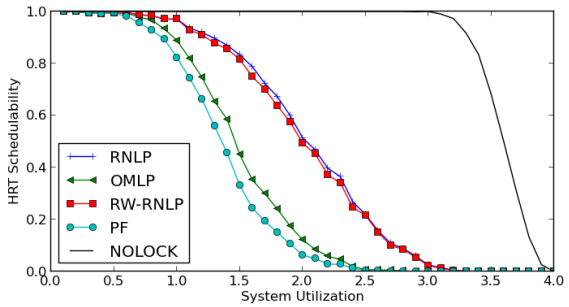

Figure 587: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

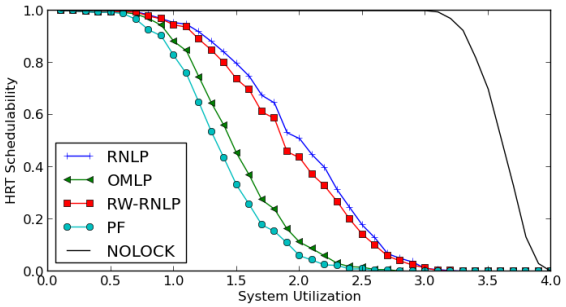

Figure 588: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

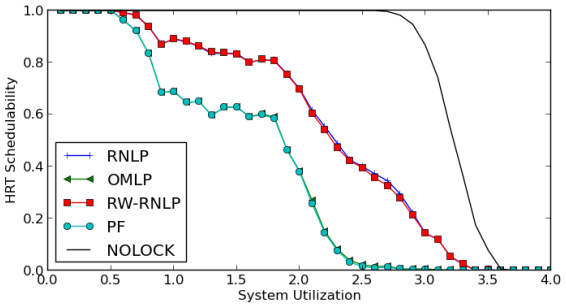

Figure 589: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

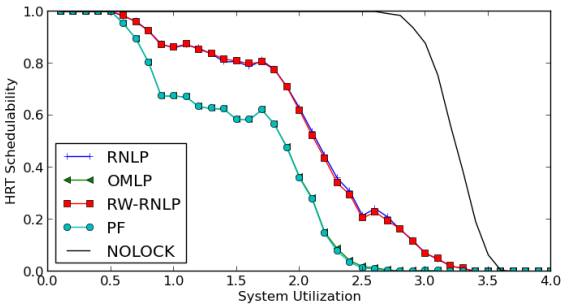

Figure 590: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

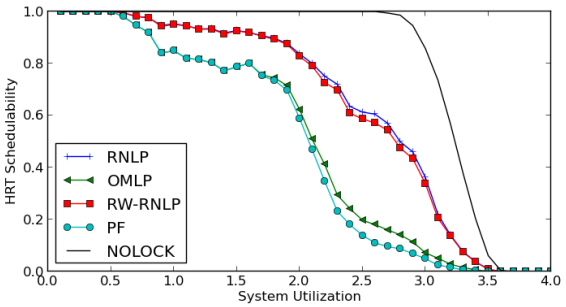

Figure 591: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

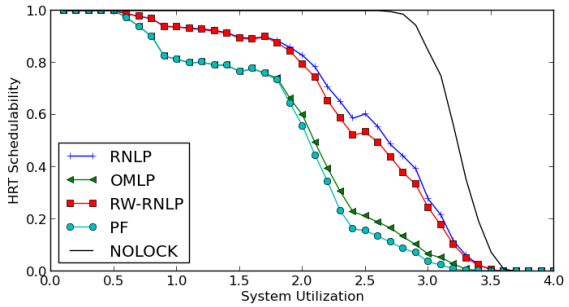

Figure 592: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

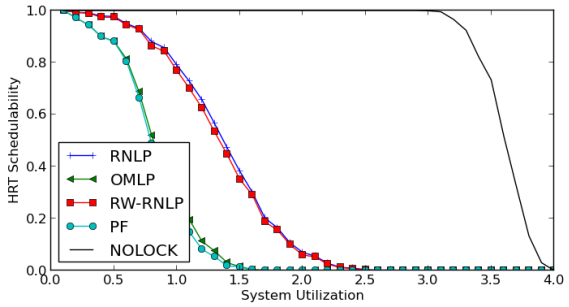

Figure 593: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

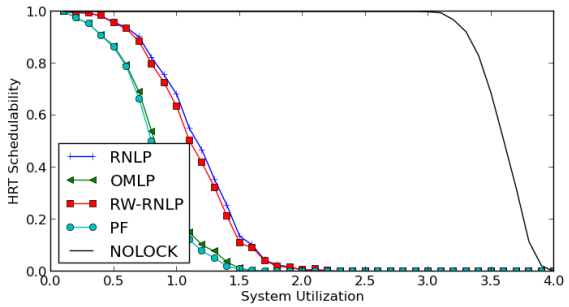

Figure 594: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

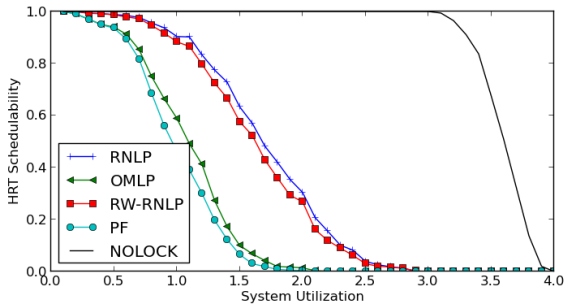

Figure 595: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

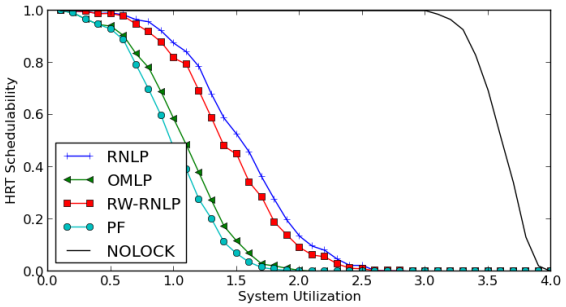

Figure 596: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

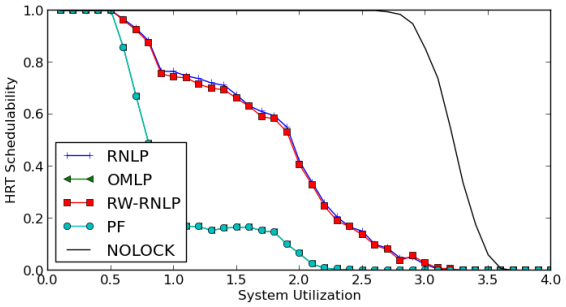

Figure 597: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

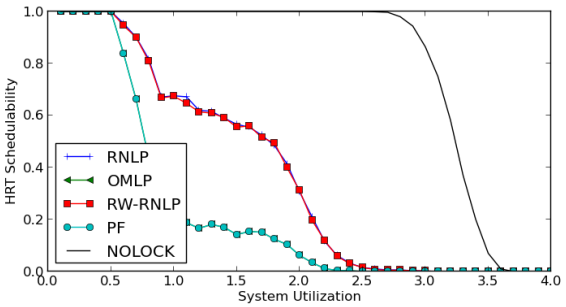

Figure 598: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

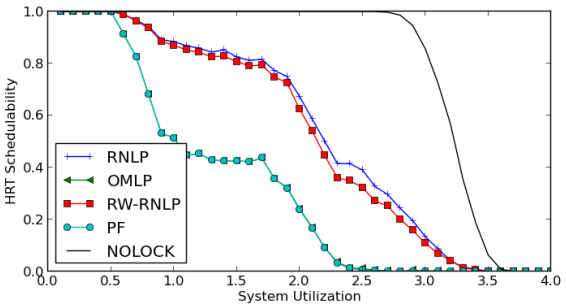

Figure 599: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

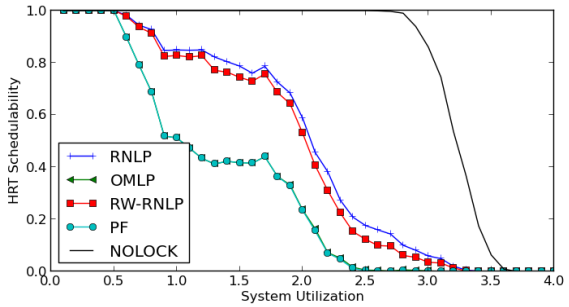

Figure 600: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

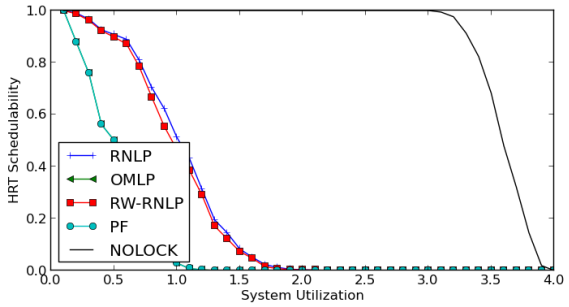

Figure 601: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

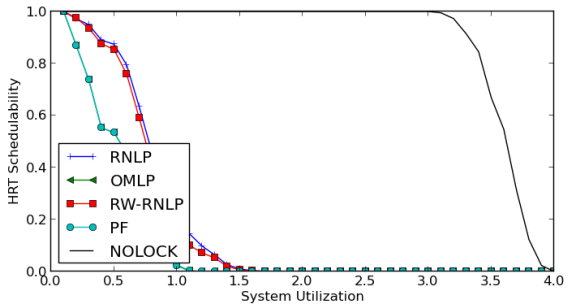

Figure 602: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

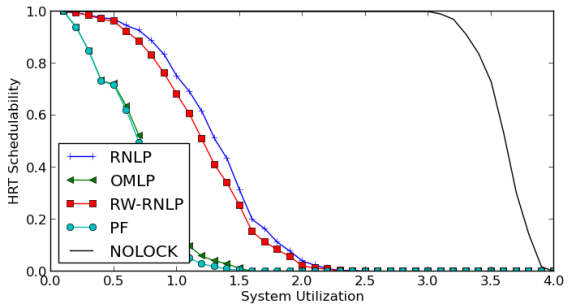

Figure 603: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

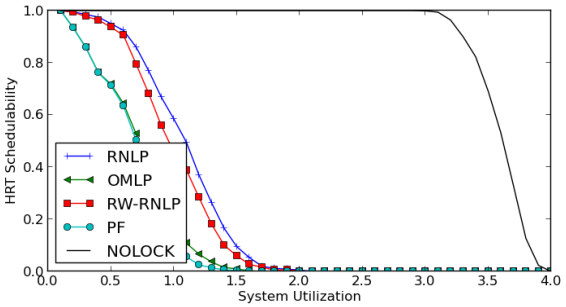

Figure 604: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

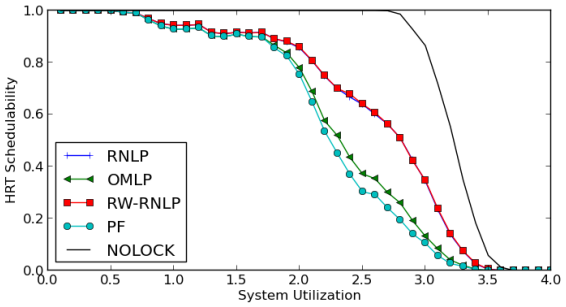

Figure 605: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

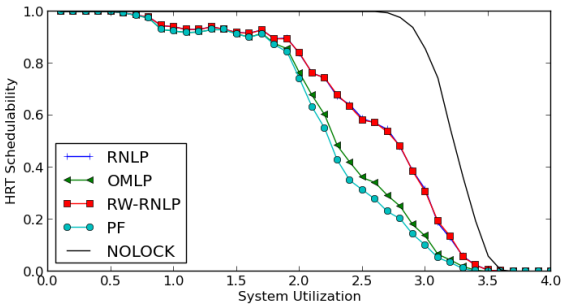

Figure 606: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

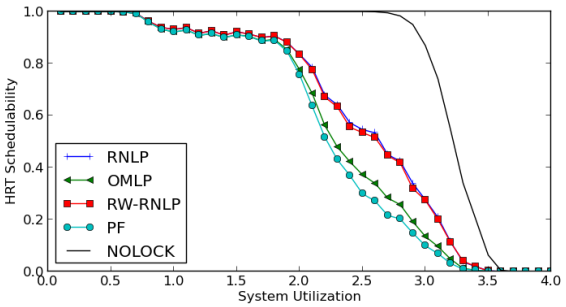

Figure 607: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

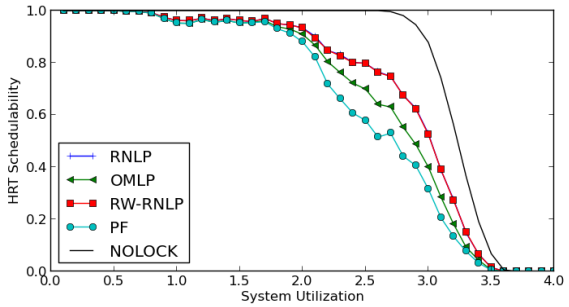

Figure 608: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

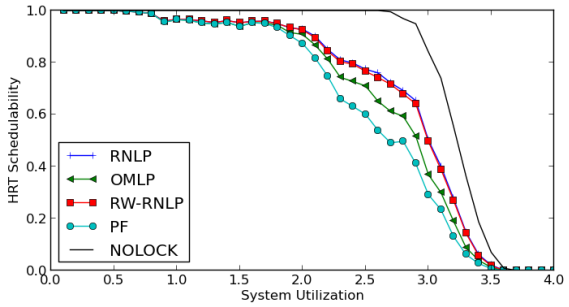

Figure 609: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

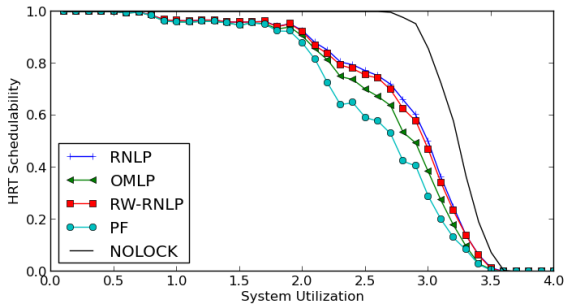

Figure 610: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

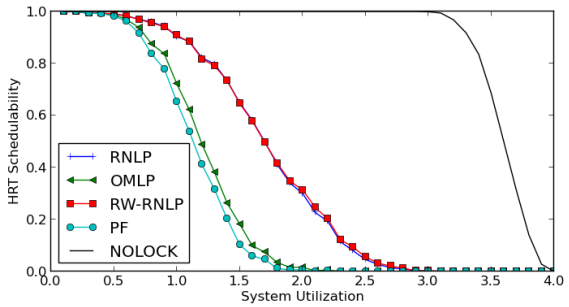

Figure 611: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

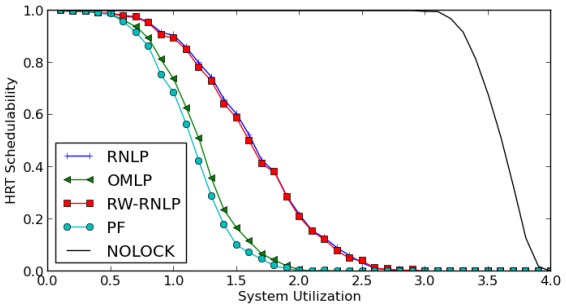

Figure 612: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

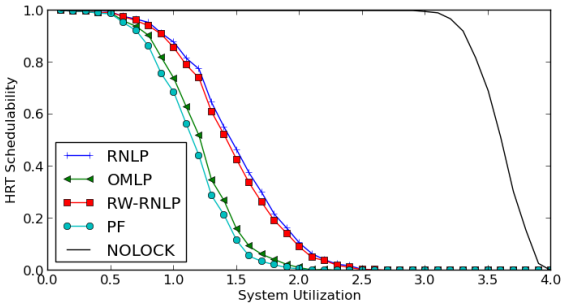

Figure 613: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

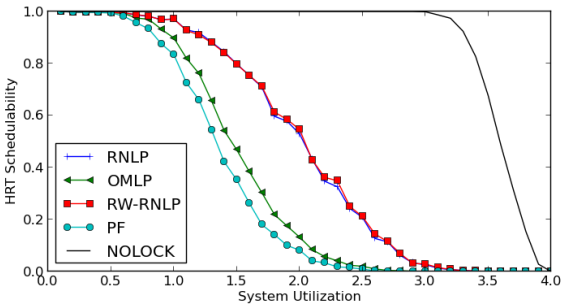

Figure 614: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

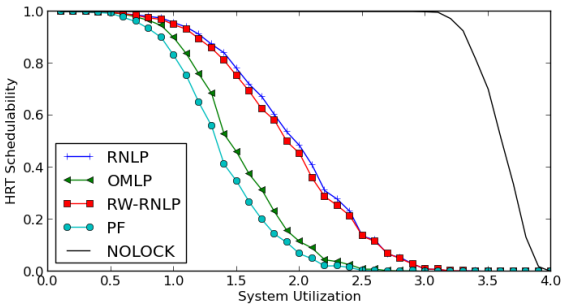

Figure 615: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

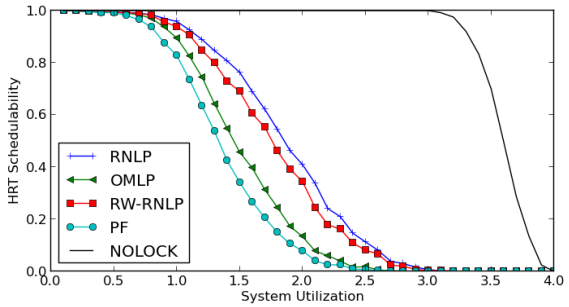

Figure 616: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

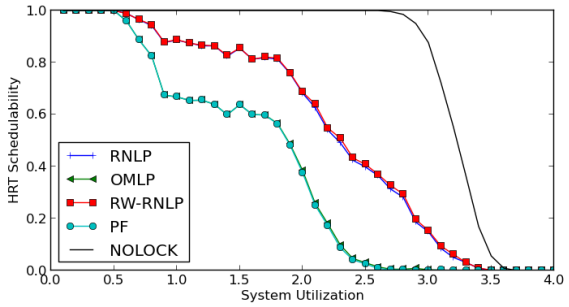

Figure 617: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

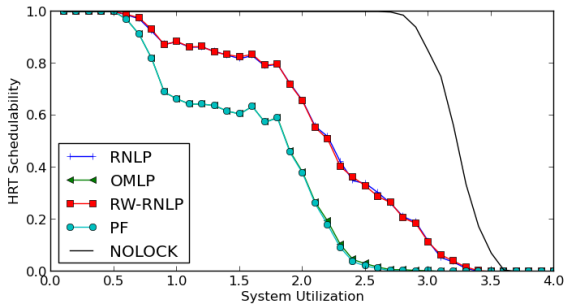

Figure 618: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

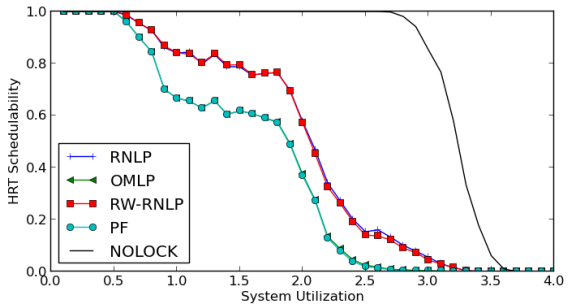

Figure 619: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

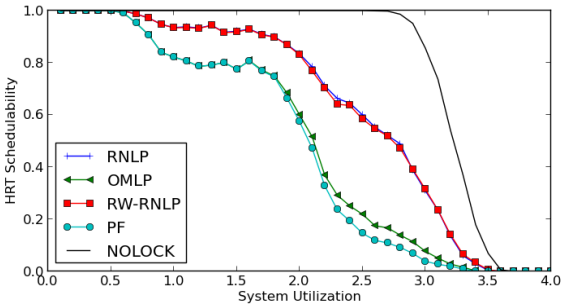

Figure 620: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

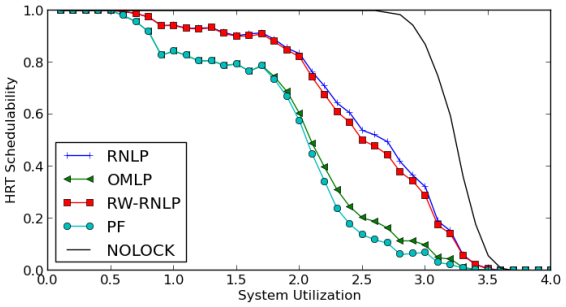

Figure 621: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

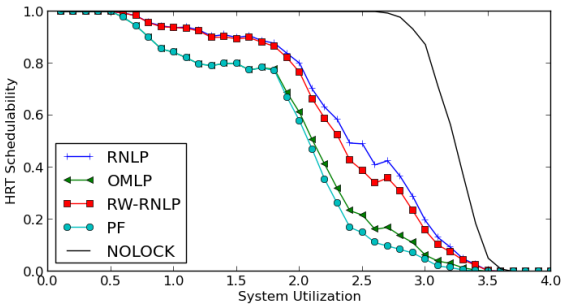

Figure 622: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

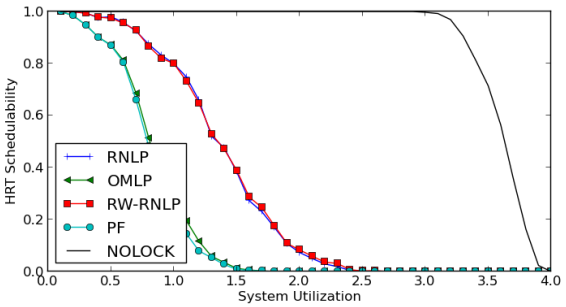

Figure 623: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

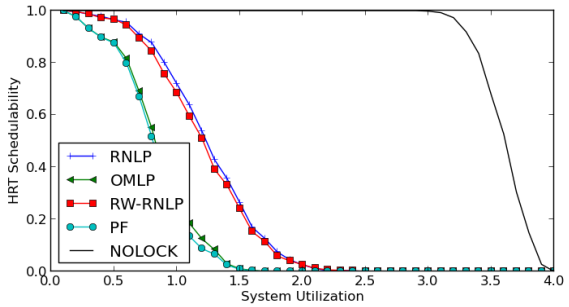

Figure 624: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

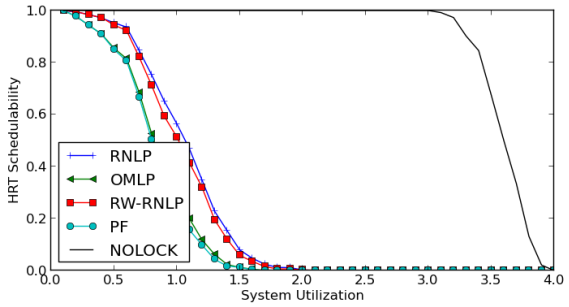

Figure 625: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

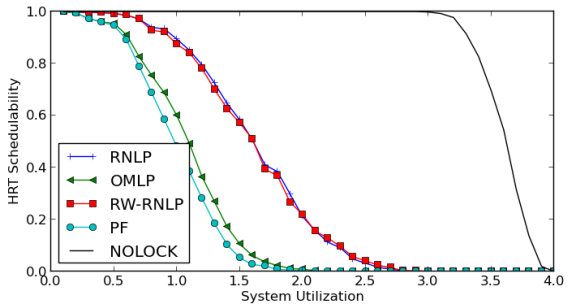

Figure 626: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

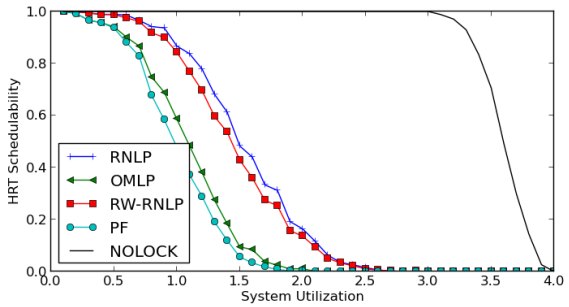

Figure 627: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

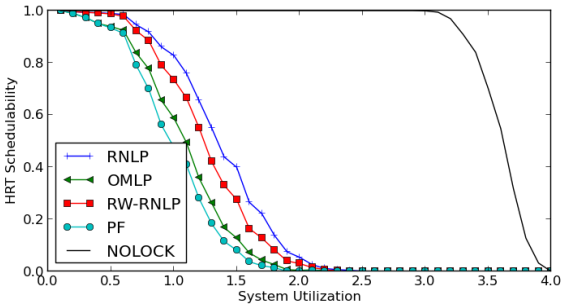

Figure 628: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

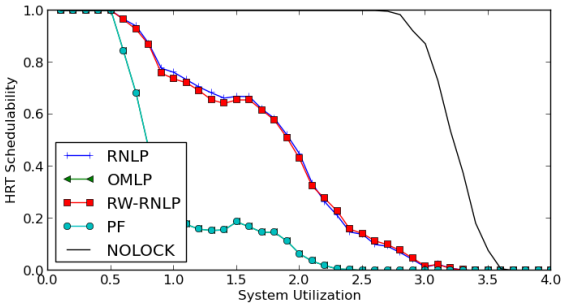

Figure 629: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

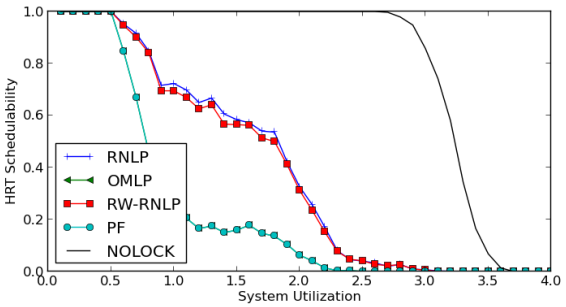

Figure 630: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

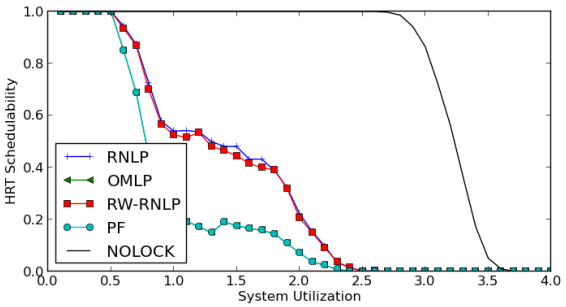

Figure 631: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

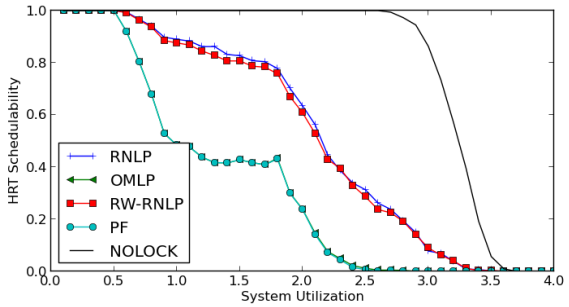

Figure 632: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

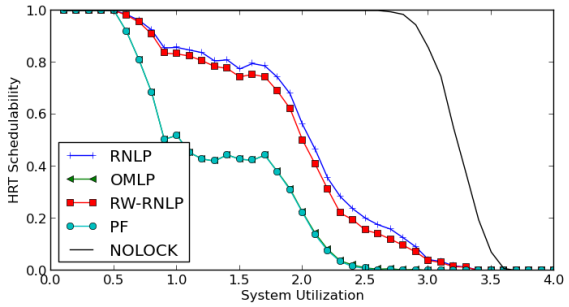

Figure 633: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

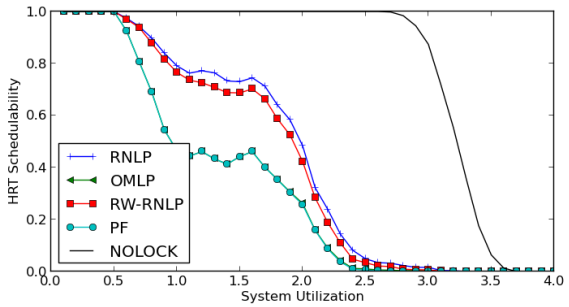

Figure 634: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

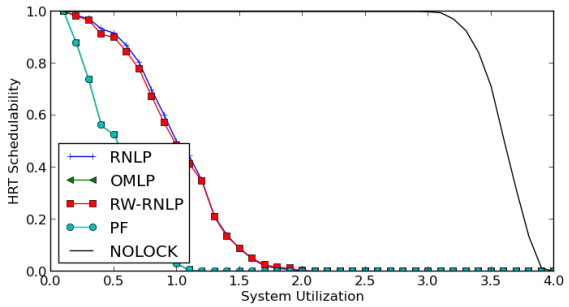

Figure 635: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

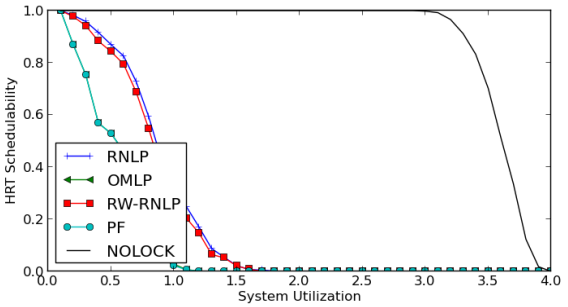

Figure 636: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

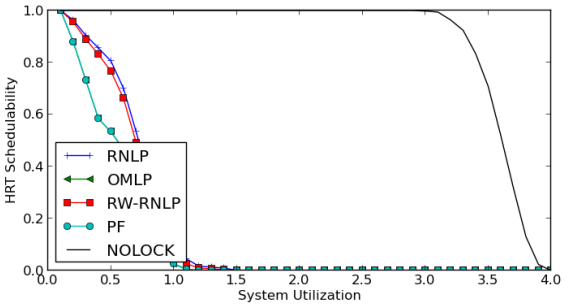

Figure 637: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

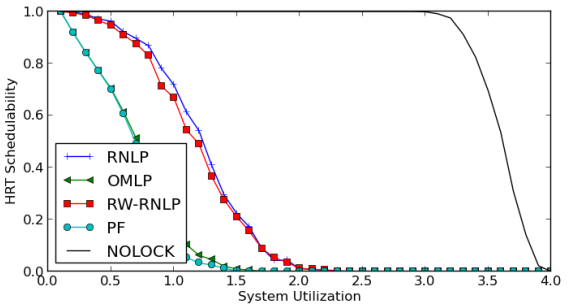

Figure 638: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

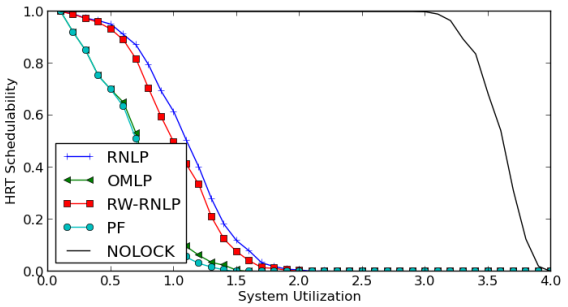

Figure 639: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

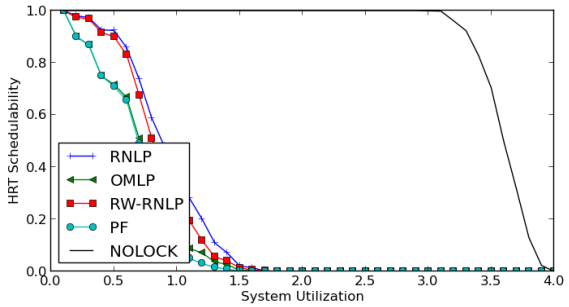

Figure 640: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

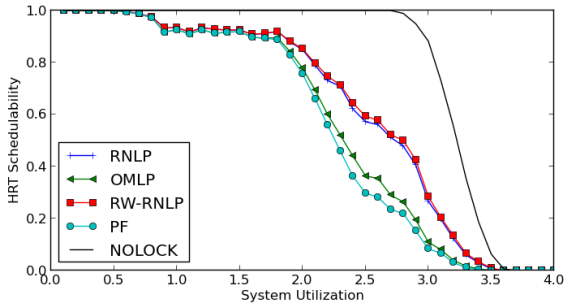

Figure 641: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

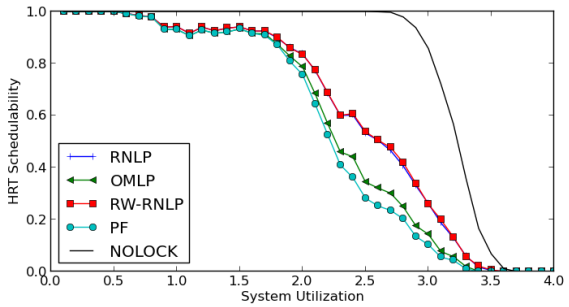

Figure 642: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

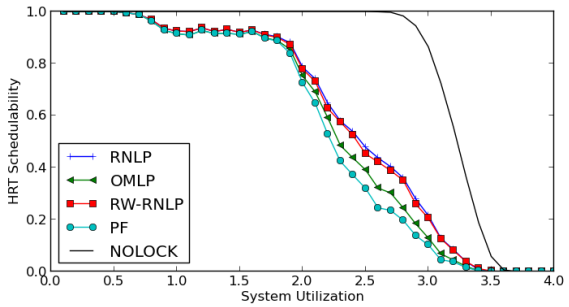

Figure 643: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

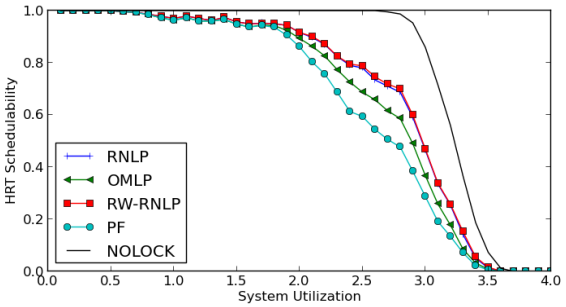

Figure 644: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

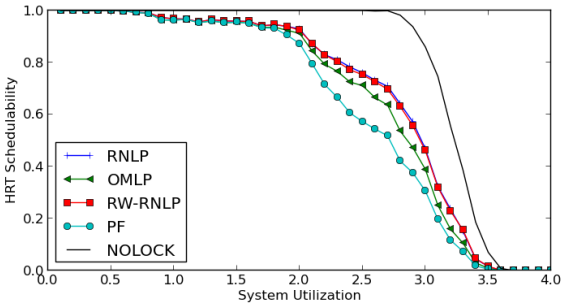

Figure 645: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

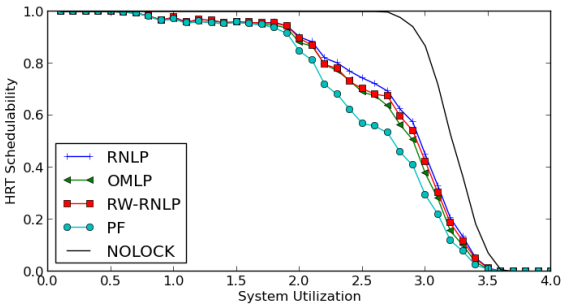

Figure 646: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

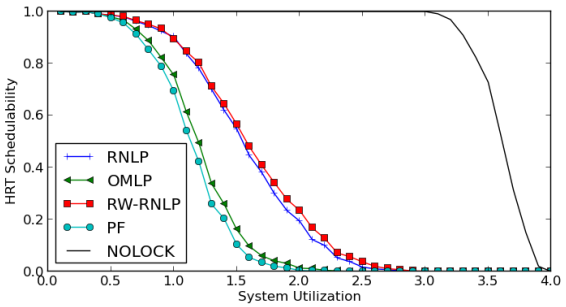

Figure 647: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

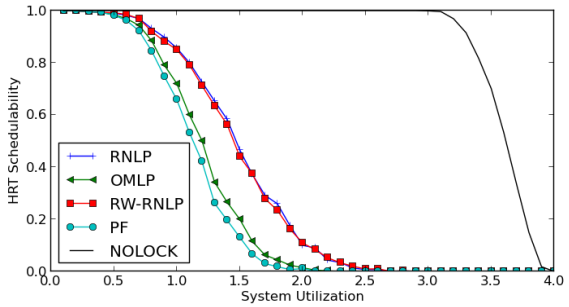

Figure 648: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

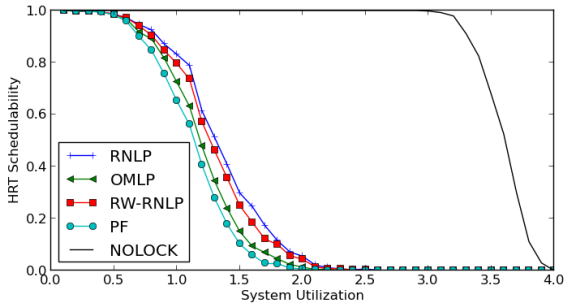

Figure 649: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

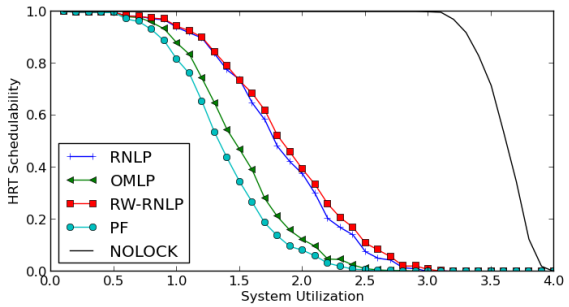

Figure 650: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

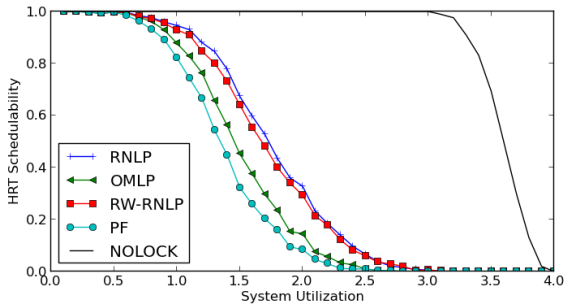

Figure 651: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

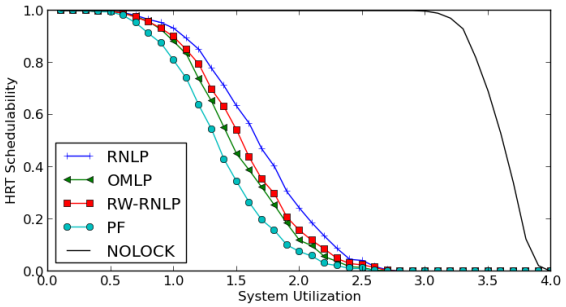

Figure 652: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

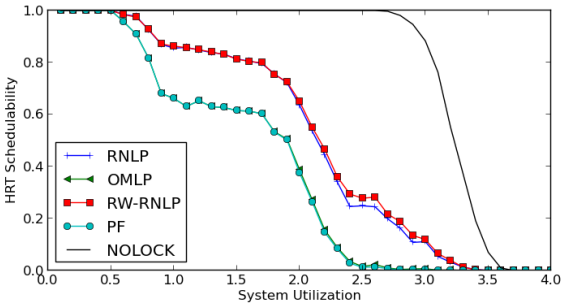

Figure 653: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

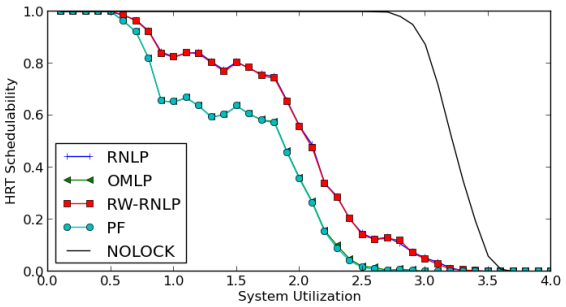

Figure 654: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

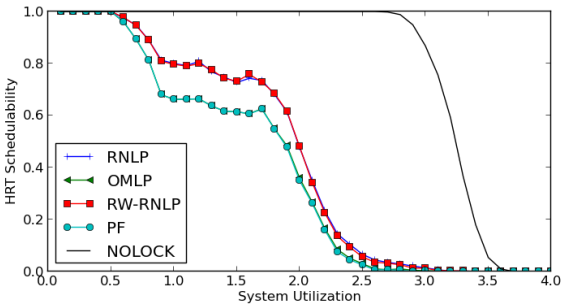

Figure 655: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

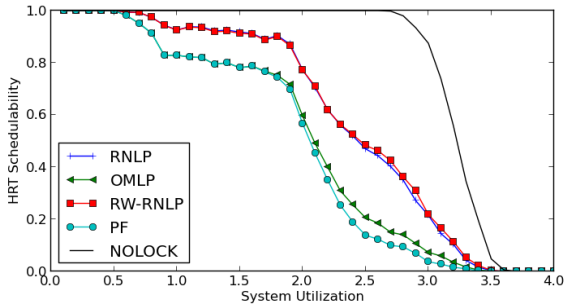

Figure 656: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

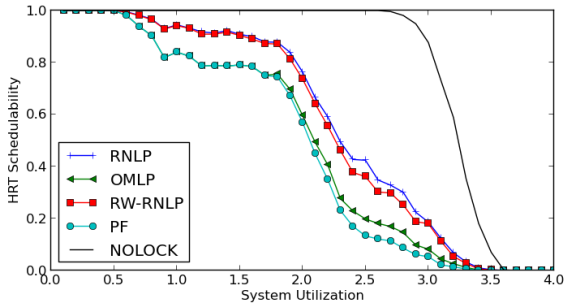

Figure 657: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

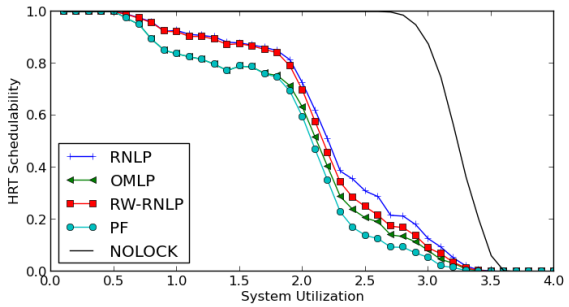

Figure 658: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

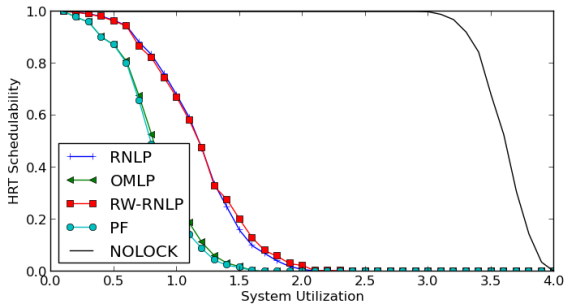

Figure 659: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

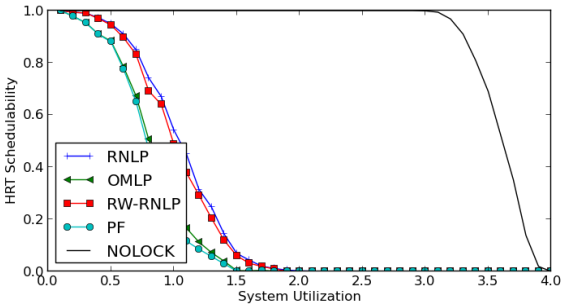

Figure 660: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

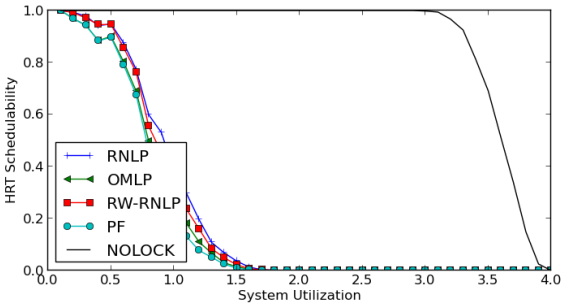

Figure 661: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

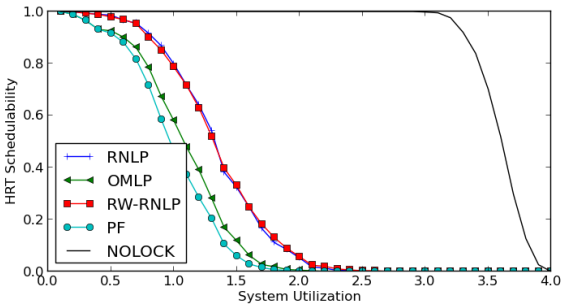

Figure 662: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

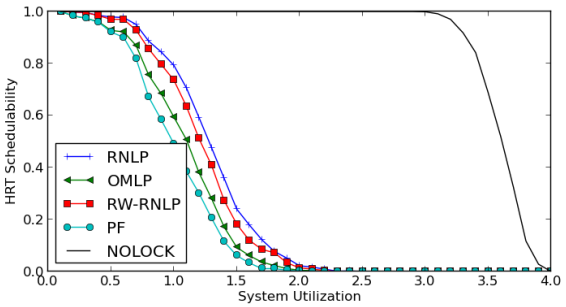

Figure 663: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

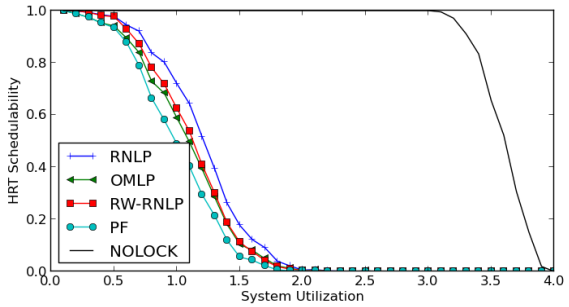

Figure 664: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

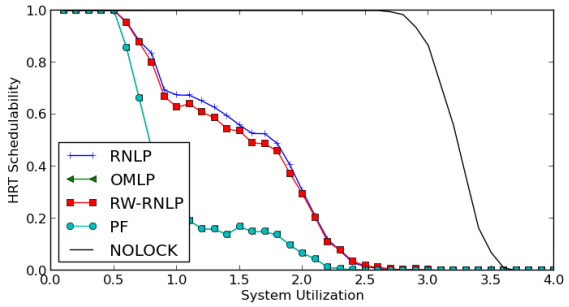

Figure 665: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

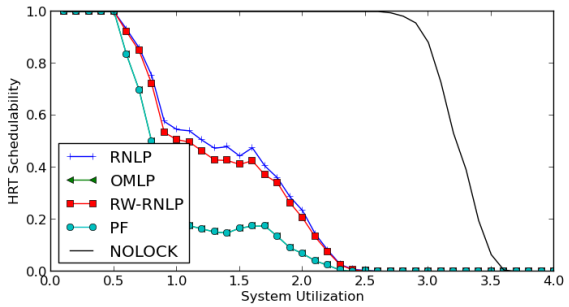

Figure 666: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

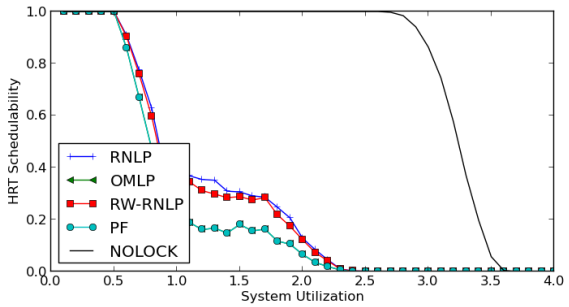

Figure 667: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

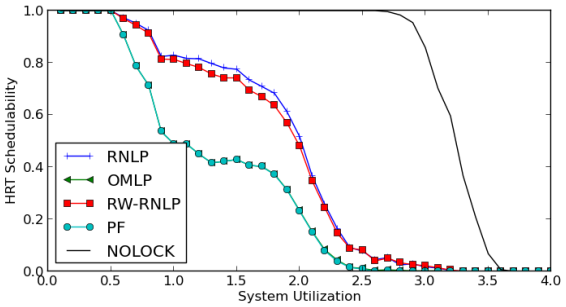

Figure 668: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

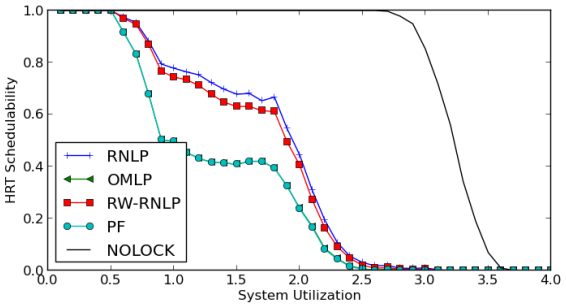

Figure 669: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

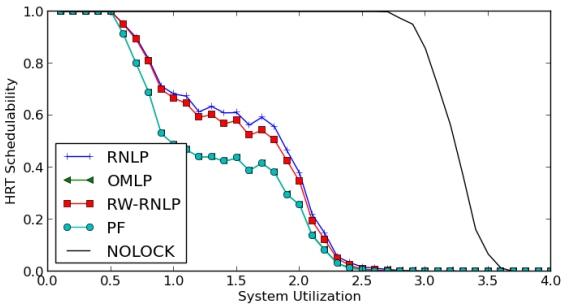

Figure 670: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

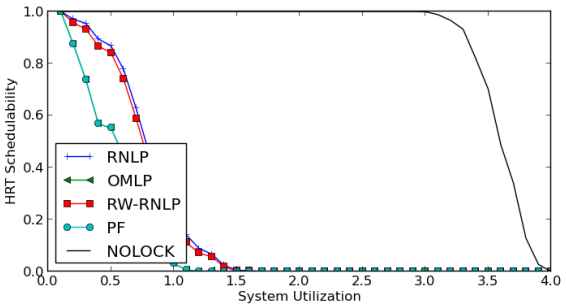

Figure 671: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

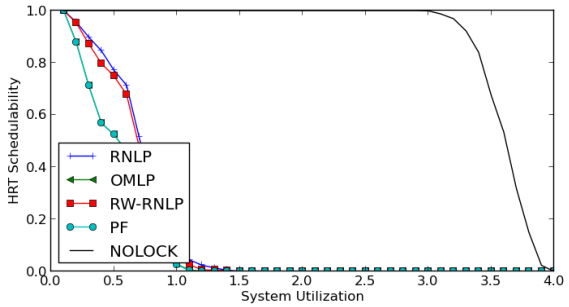

Figure 672: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

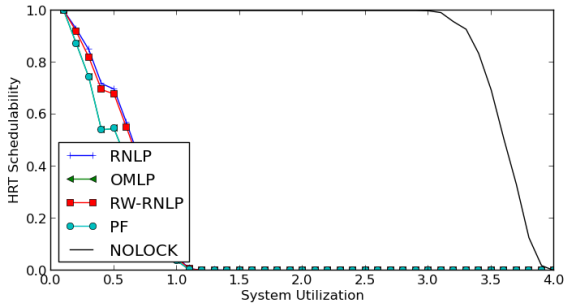

Figure 673: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

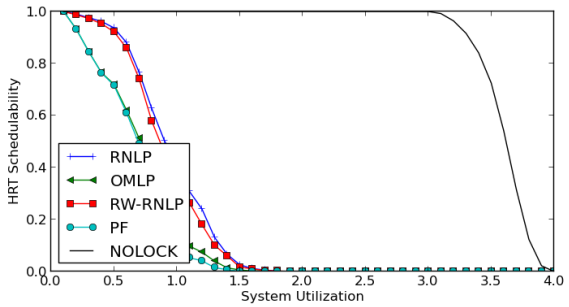

Figure 674: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

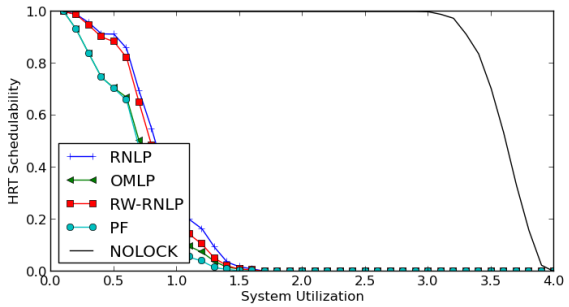

Figure 675: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

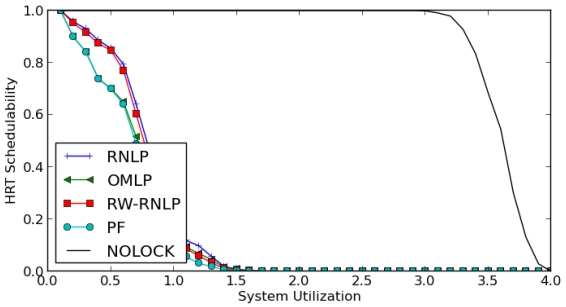

Figure 676: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

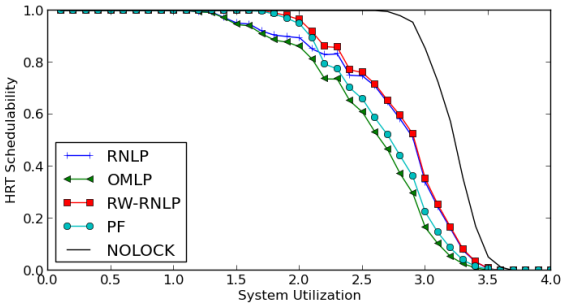

Figure 677: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

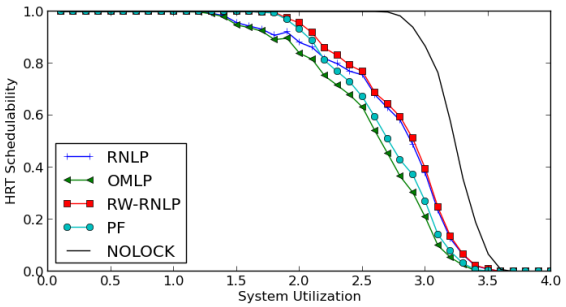

Figure 678: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

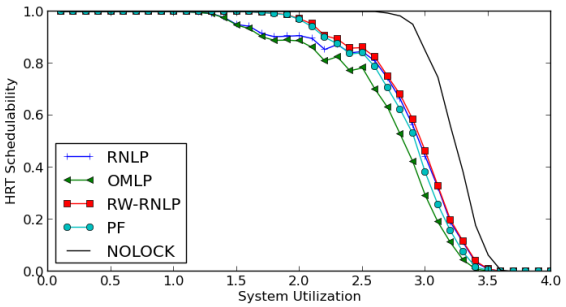

Figure 679: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

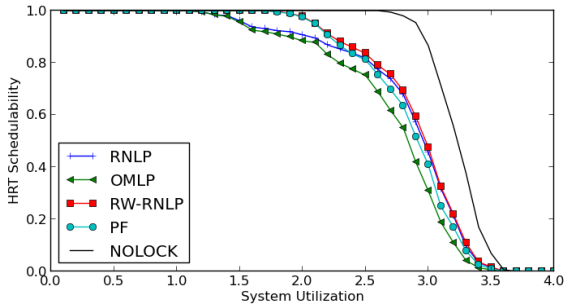

Figure 680: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

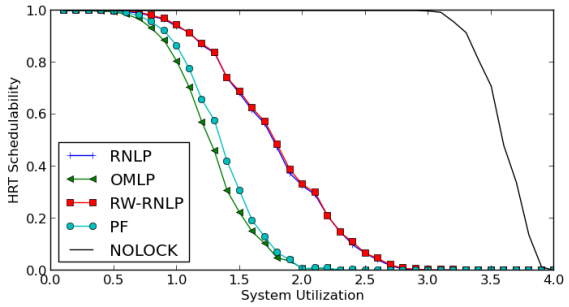

Figure 681: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

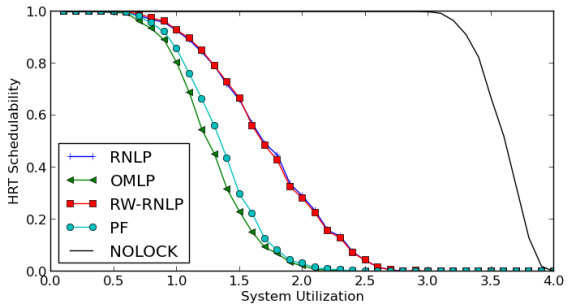

Figure 682: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

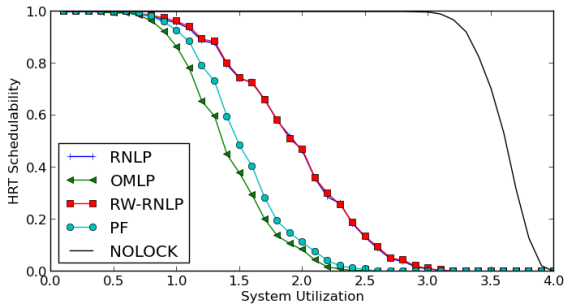

Figure 683: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

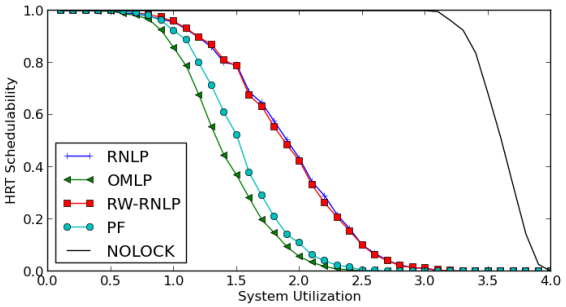

Figure 684: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

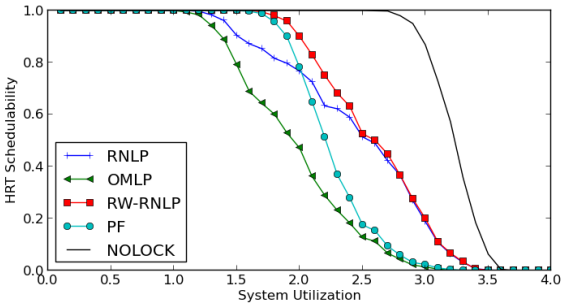

Figure 685: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

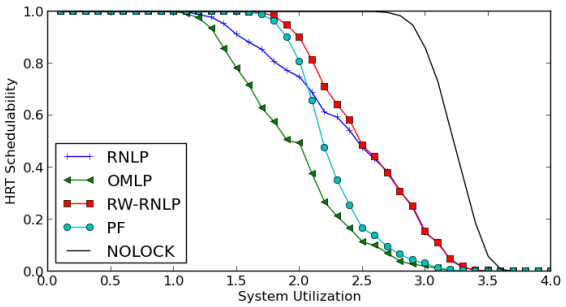

Figure 686: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

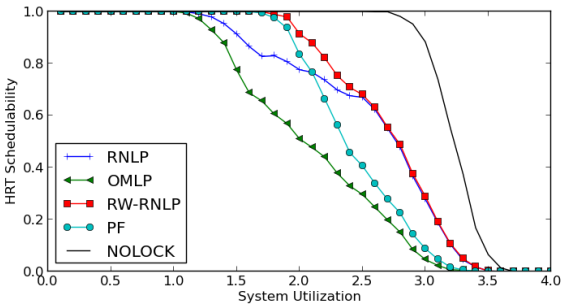

Figure 687: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

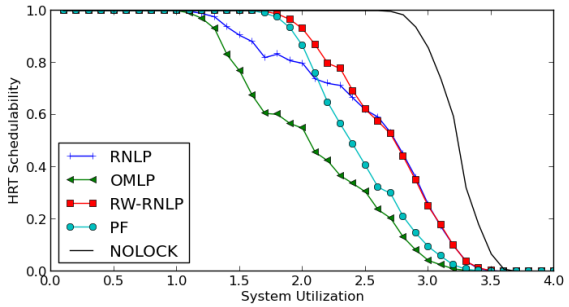

Figure 688: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

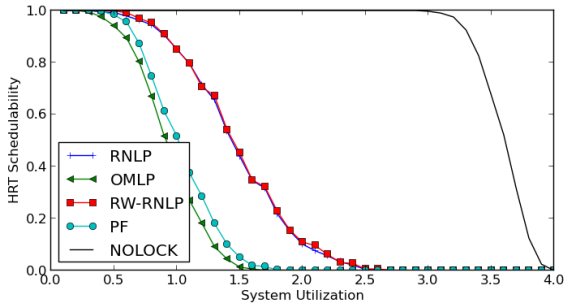

Figure 689: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

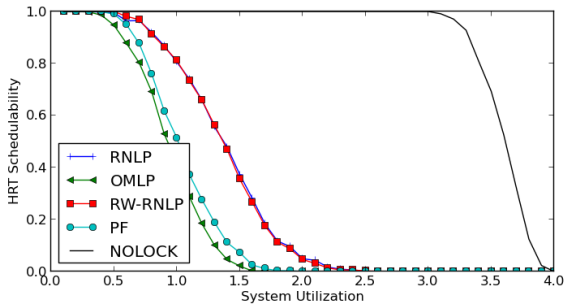

Figure 690: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

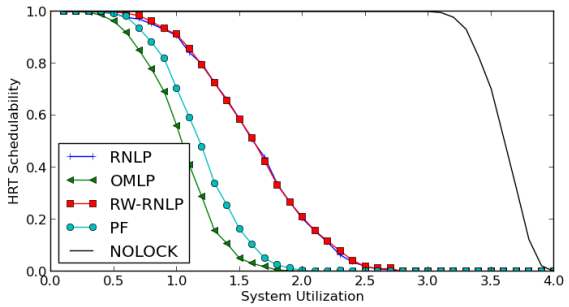

Figure 691: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

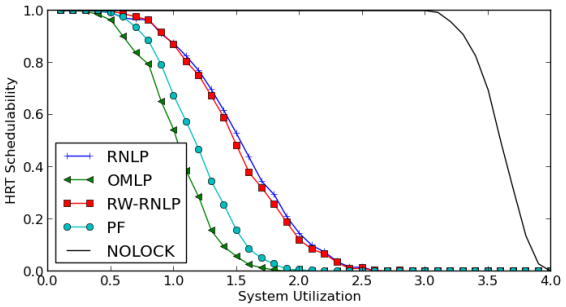

Figure 692: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

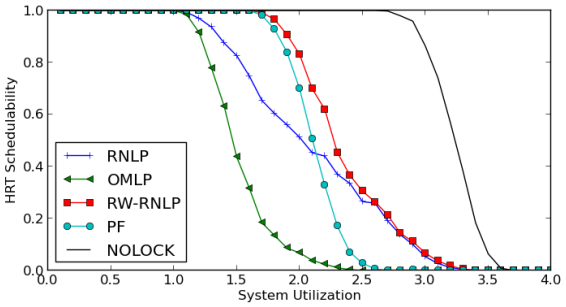

Figure 693: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

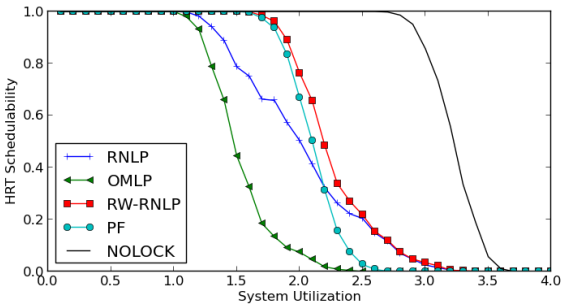

Figure 694: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

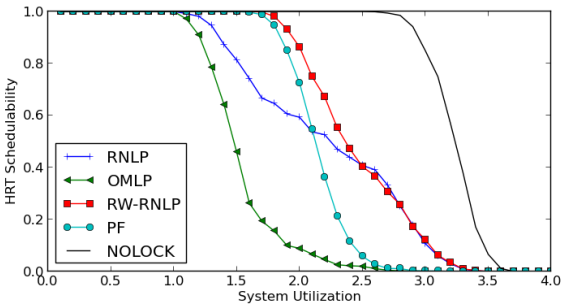

Figure 695: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

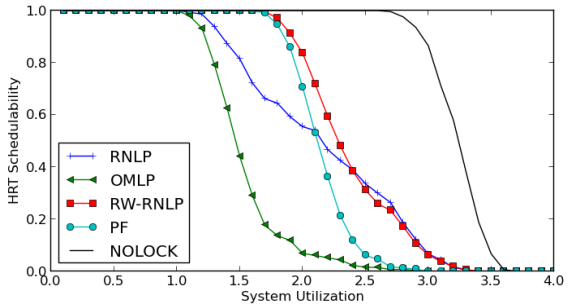

Figure 696: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

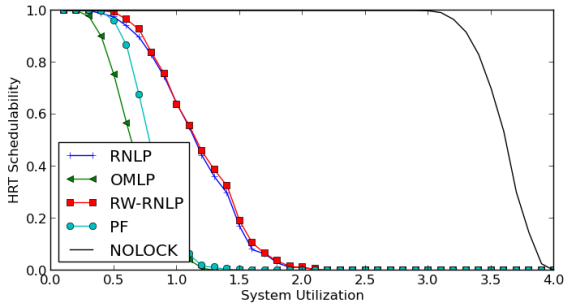

Figure 697: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

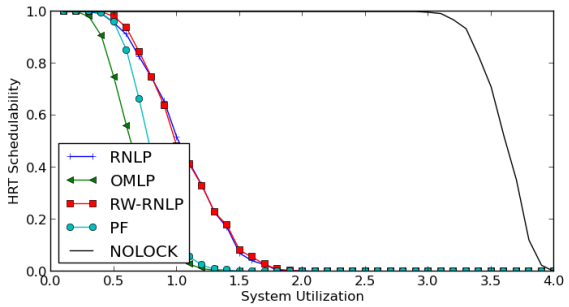

Figure 698: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

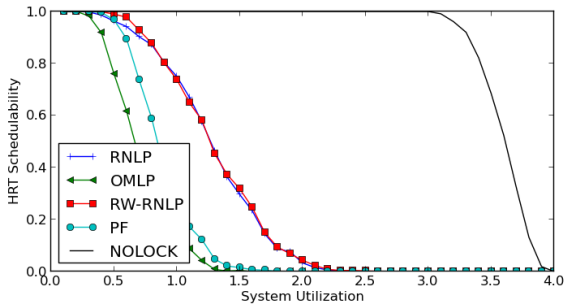

Figure 699: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

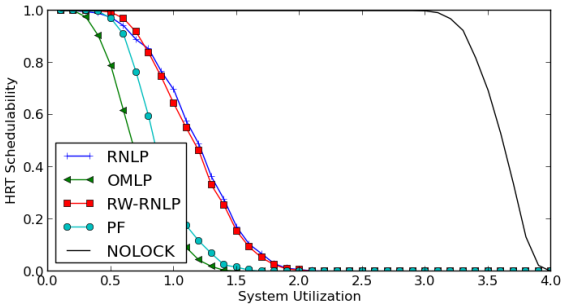

Figure 700: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

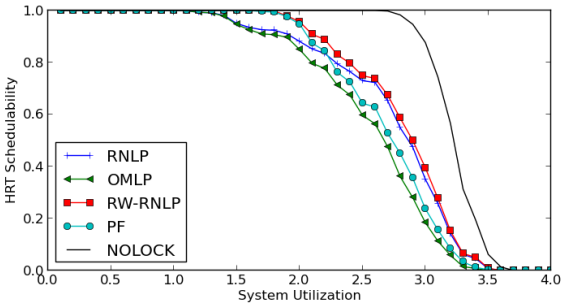

Figure 701: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

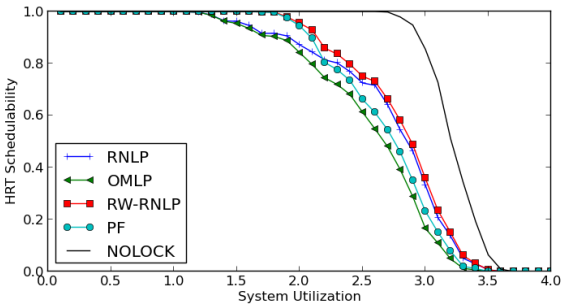

Figure 702: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

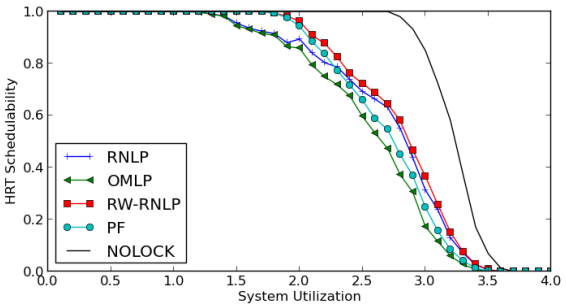

Figure 703: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

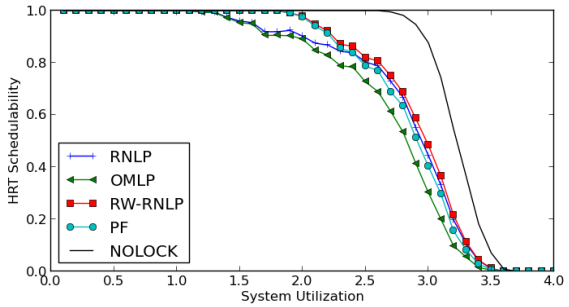

Figure 704: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

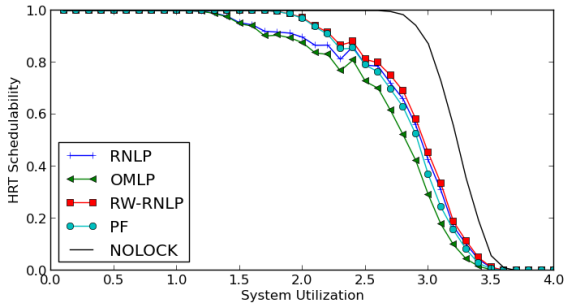

Figure 705: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

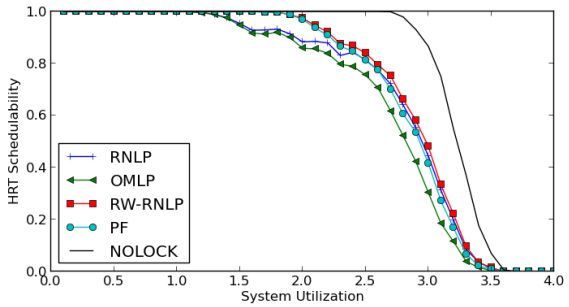

Figure 706: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

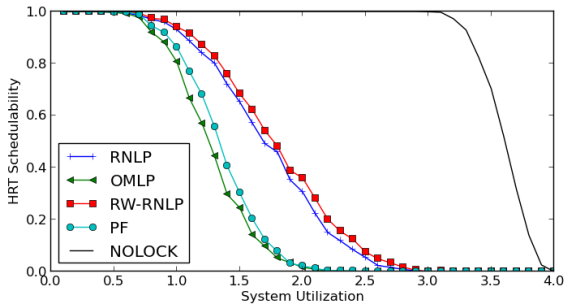

Figure 707: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

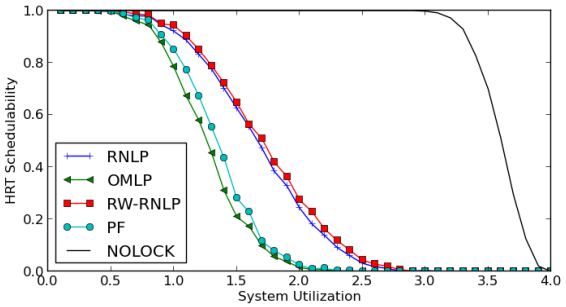

Figure 708: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

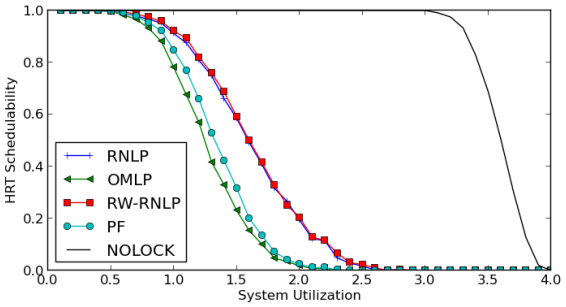

Figure 709: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

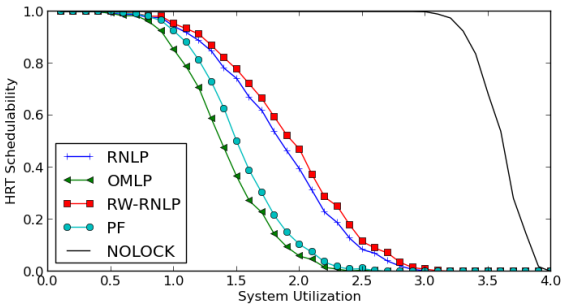

Figure 710: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

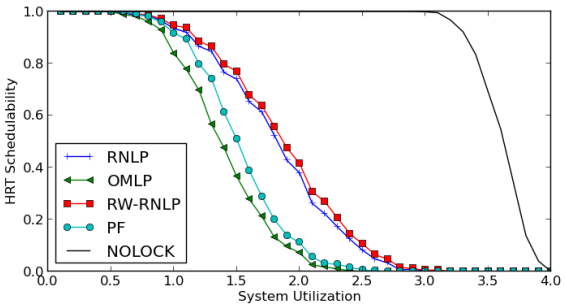

Figure 711: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

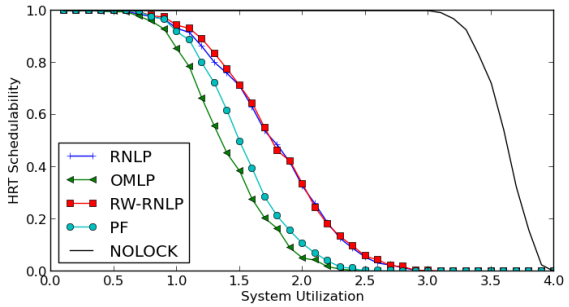

Figure 712: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

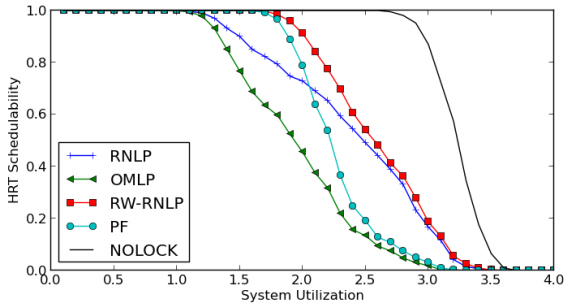

Figure 713: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

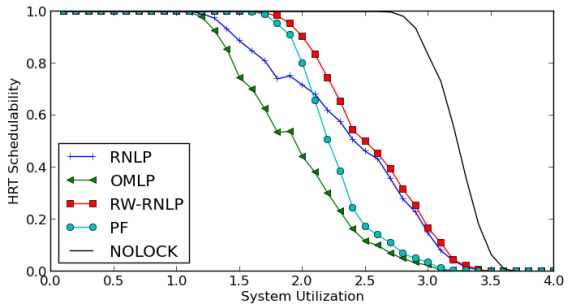

Figure 714: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

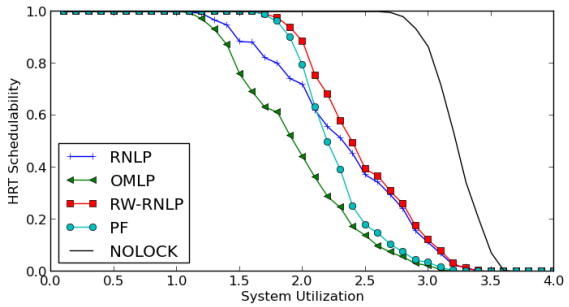

Figure 715: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

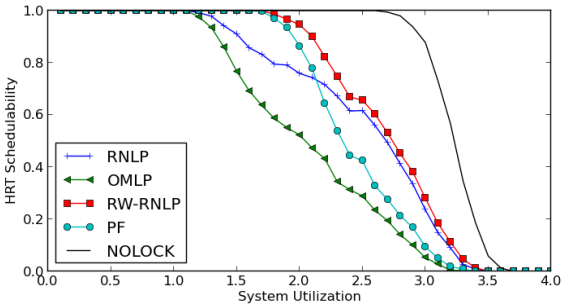

Figure 716: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

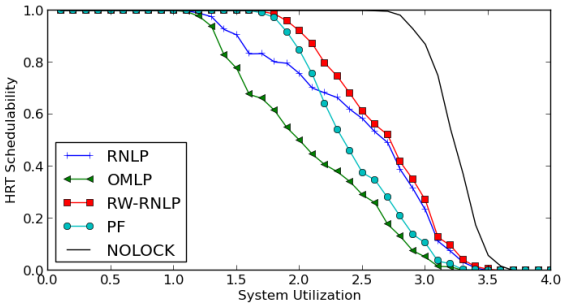

Figure 717: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

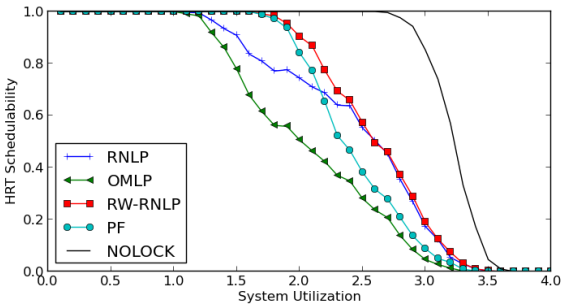

Figure 718: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

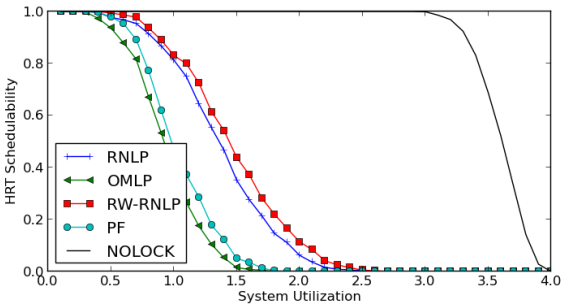

Figure 719: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

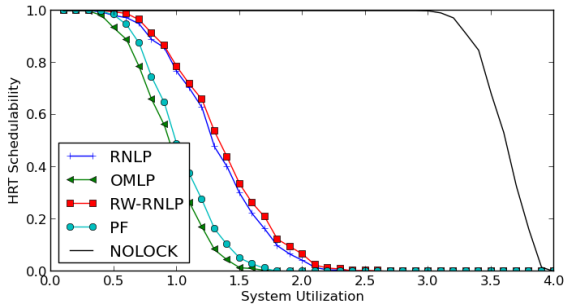

Figure 720: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

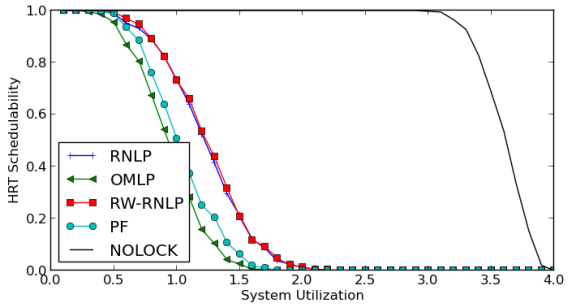

Figure 721: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

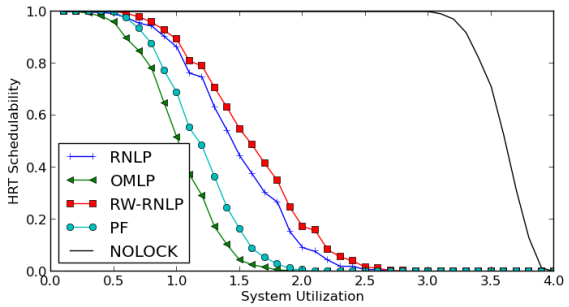

Figure 722: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

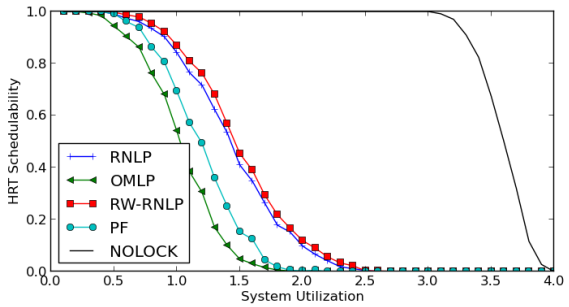

Figure 723: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

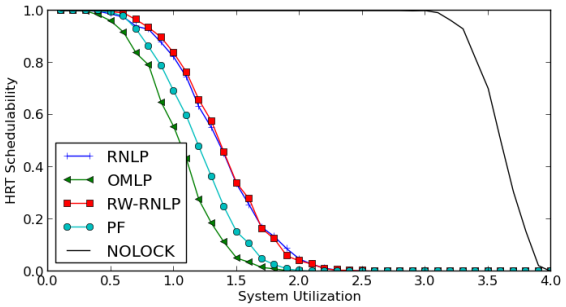

Figure 724: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

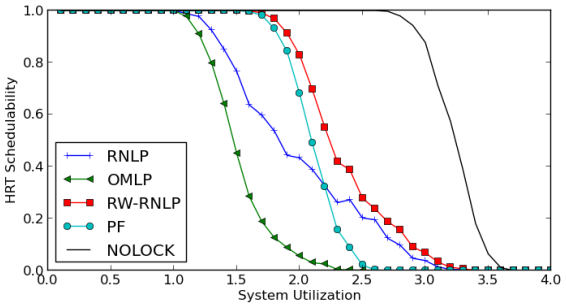

Figure 725: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

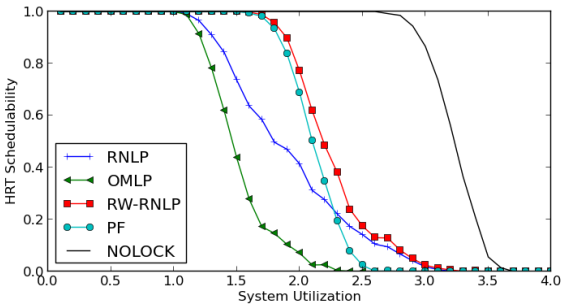

Figure 726: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

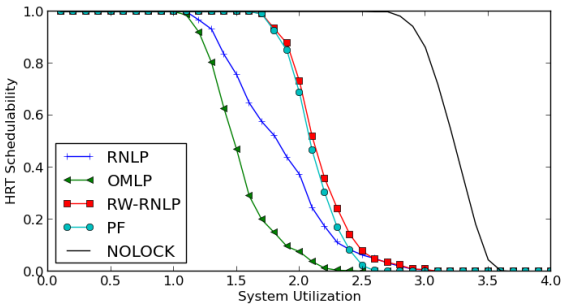

Figure 727: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

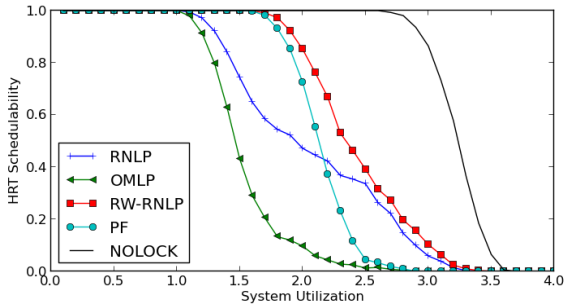

Figure 728: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

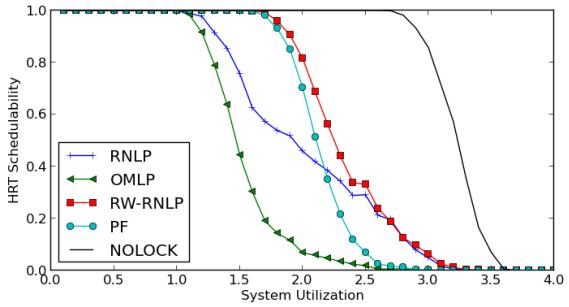

Figure 729: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

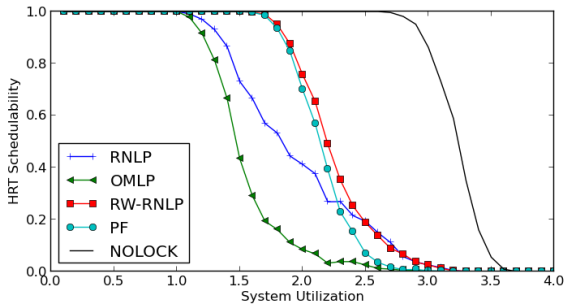

Figure 730: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

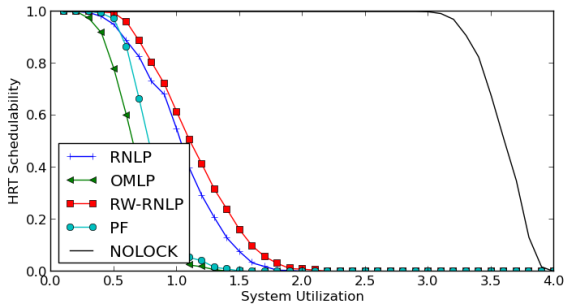

Figure 731: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

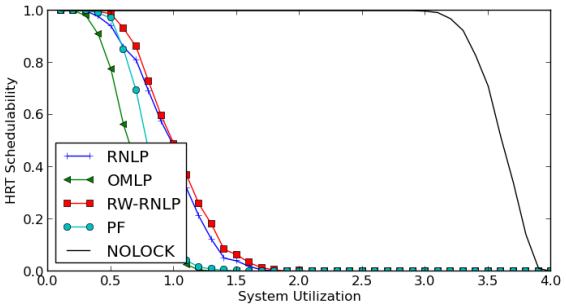

Figure 732: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

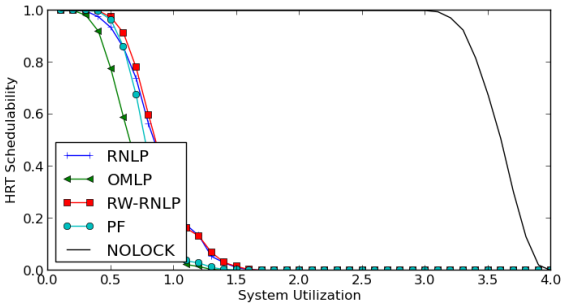

Figure 733: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

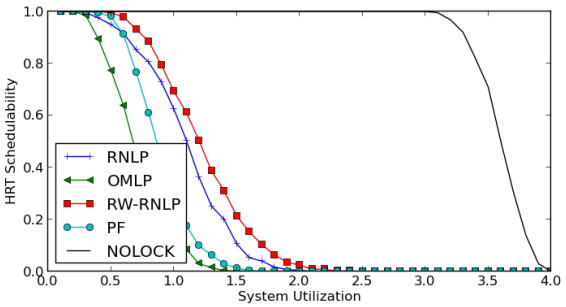

Figure 734: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

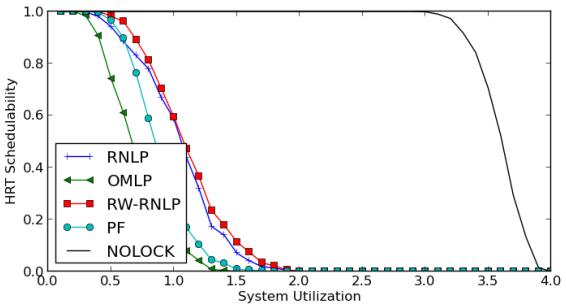

Figure 735: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

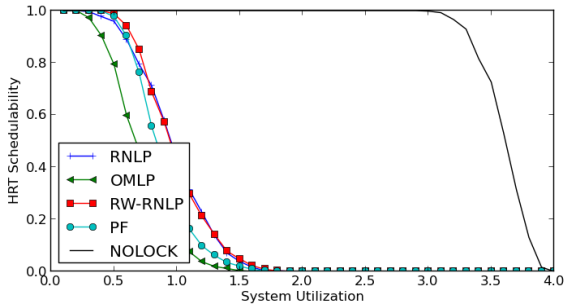

Figure 736: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

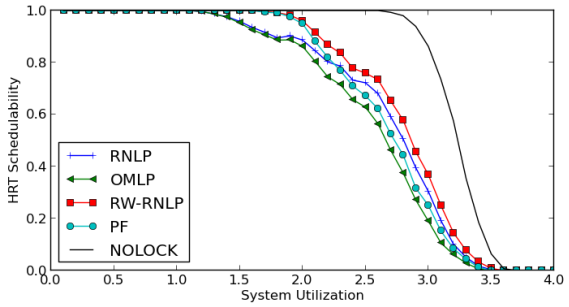

Figure 737: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

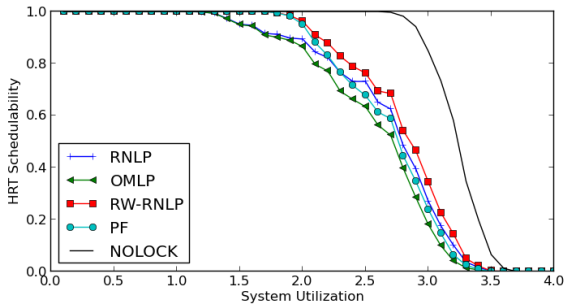

Figure 738: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

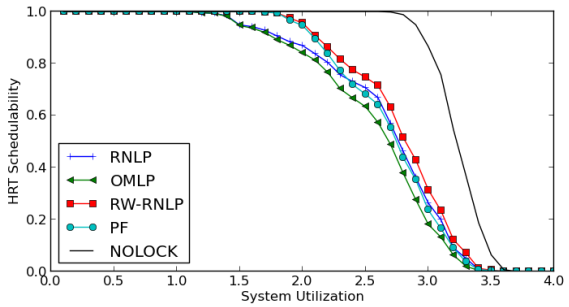

Figure 739: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

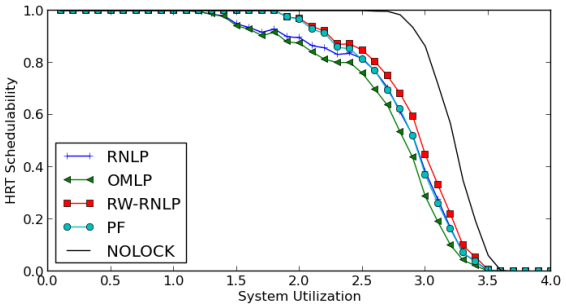

Figure 740: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

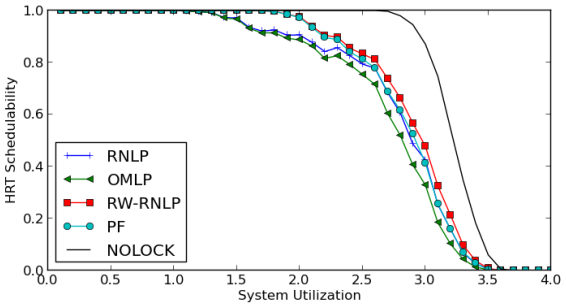

Figure 741: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

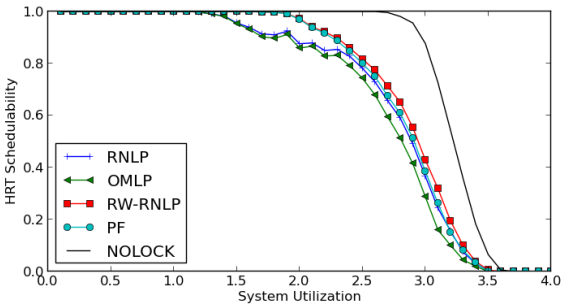

Figure 742: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

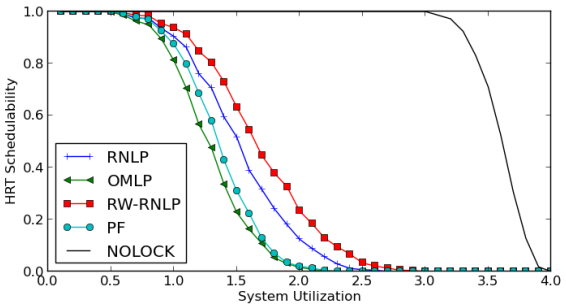

Figure 743: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

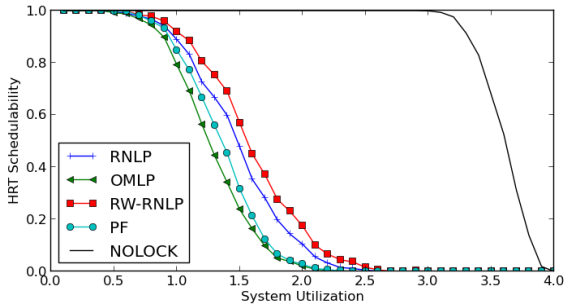

Figure 744: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

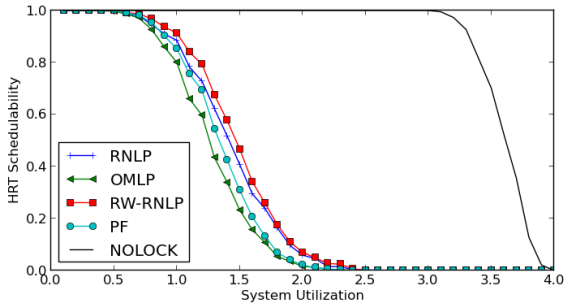

Figure 745: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

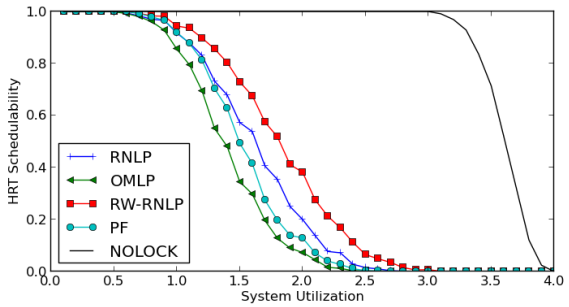

Figure 746: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

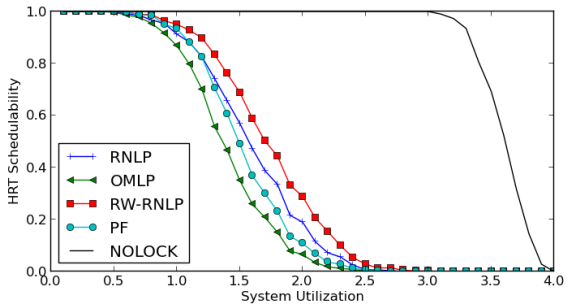

Figure 747: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

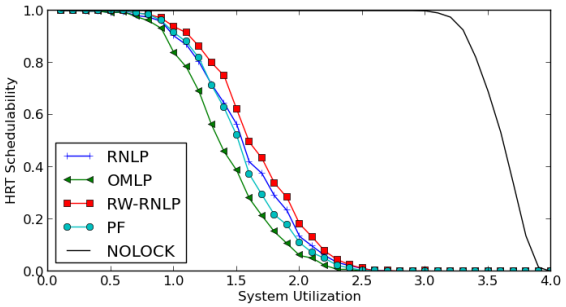

Figure 748: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

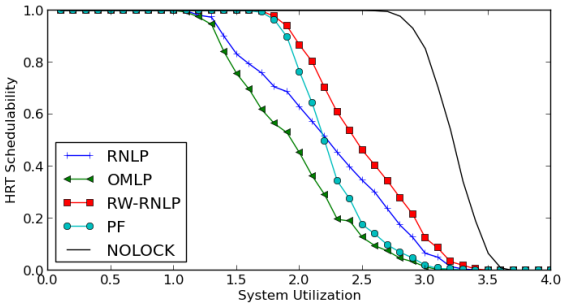

Figure 749: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

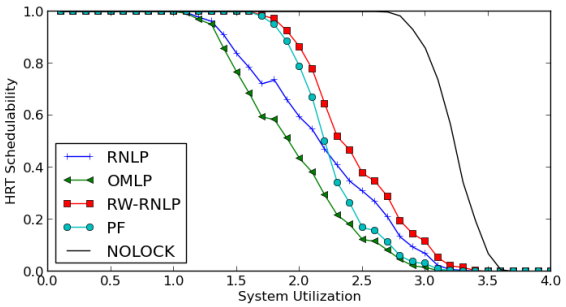

Figure 750: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

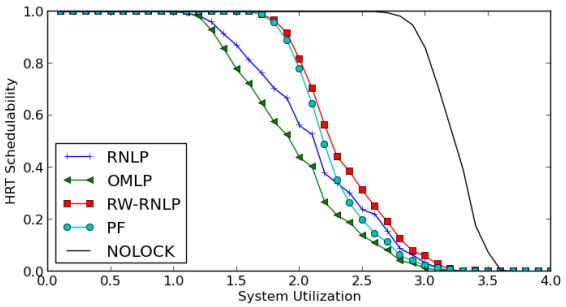

Figure 751: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

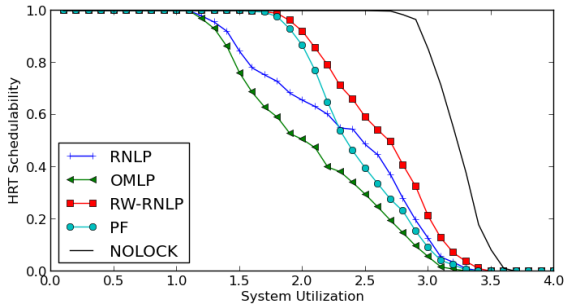

Figure 752: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

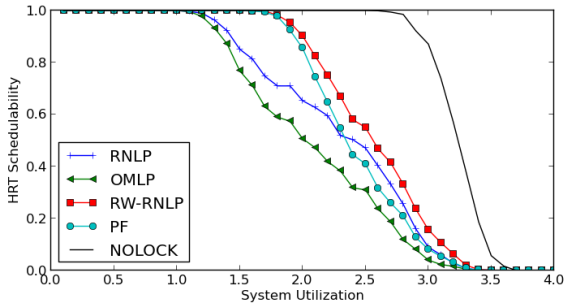

Figure 753: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

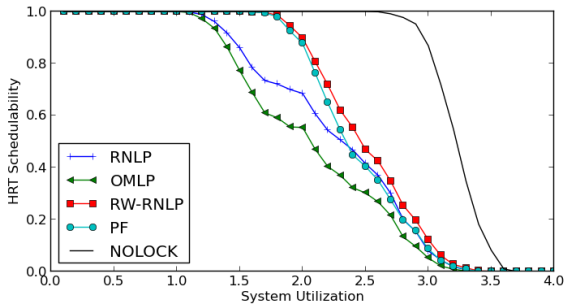

Figure 754: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

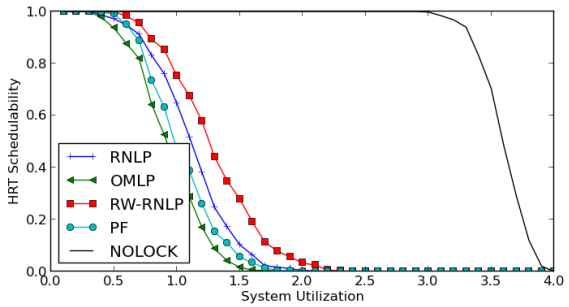

Figure 755: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

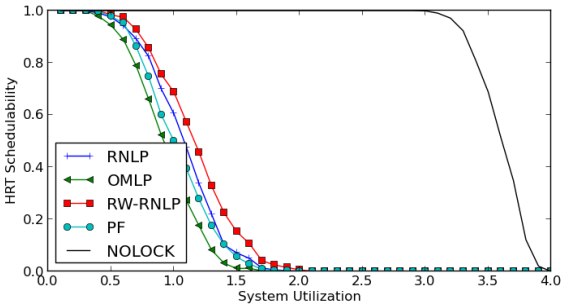

Figure 756: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

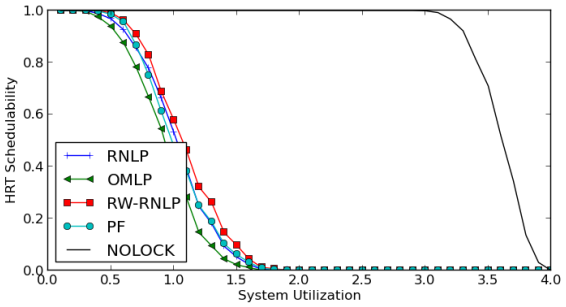

Figure 757: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

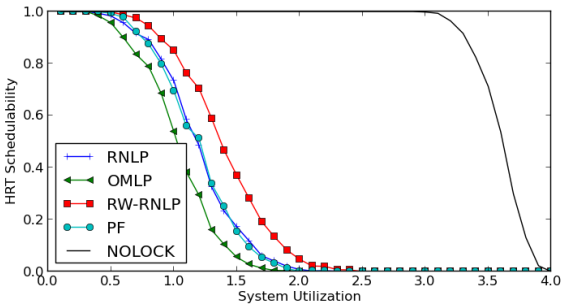

Figure 758: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

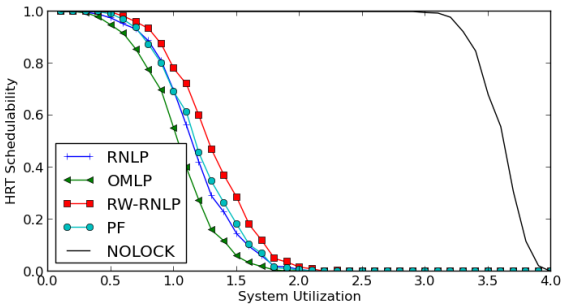

Figure 759: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

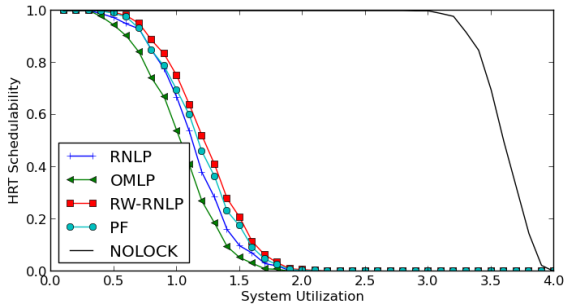

Figure 760: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

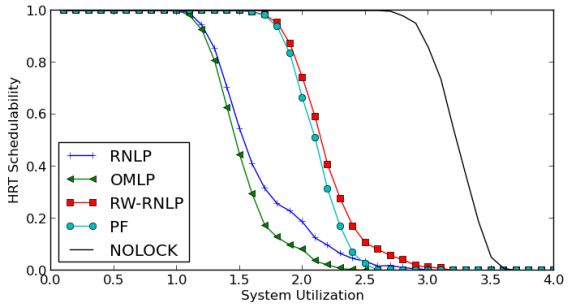

Figure 761: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

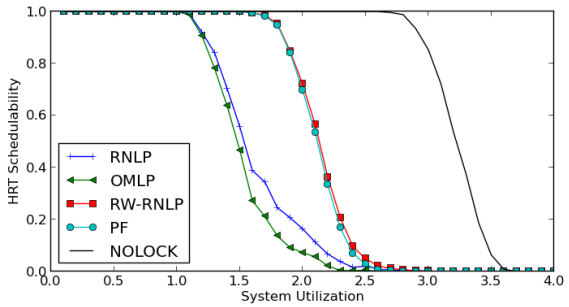

Figure 762: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

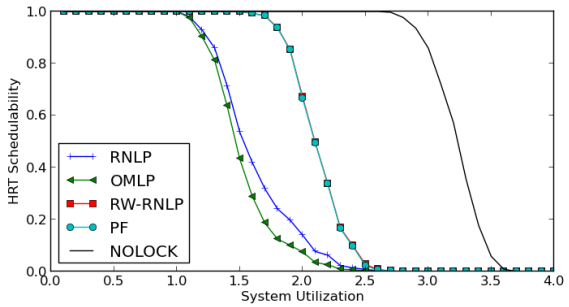

Figure 763: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

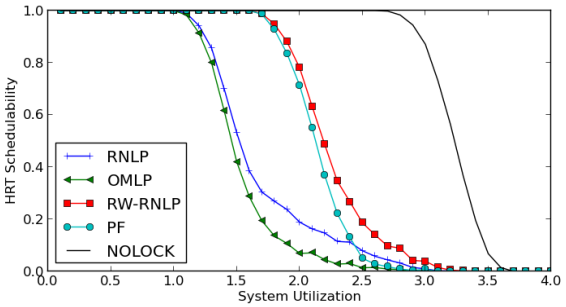

Figure 764: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

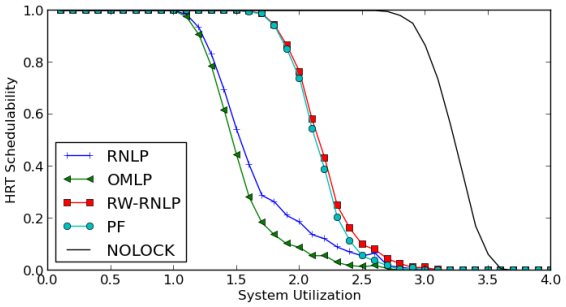

Figure 765: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

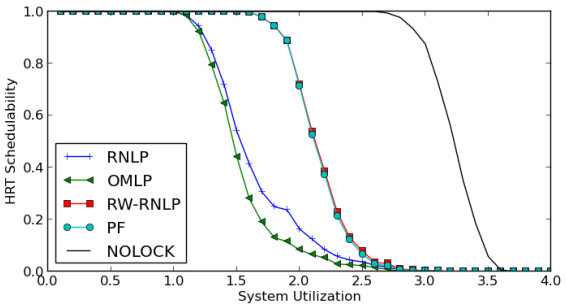

Figure 766: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

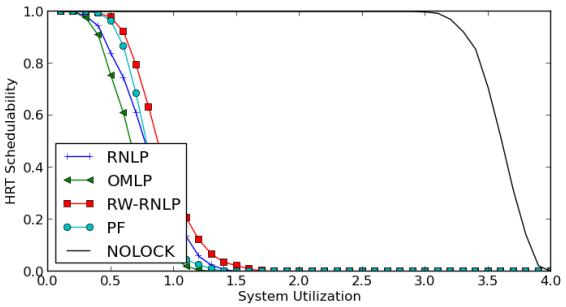

Figure 767: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

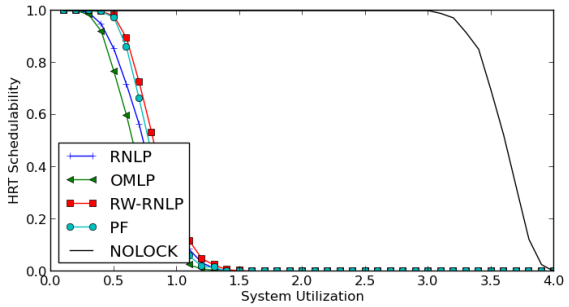

Figure 768: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

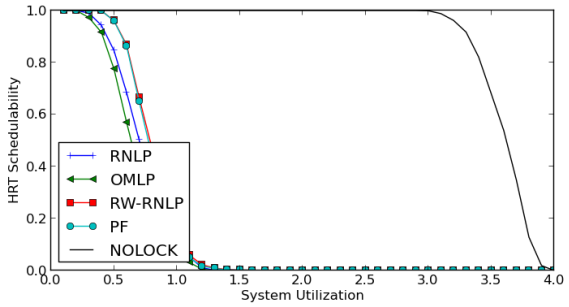

Figure 769: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

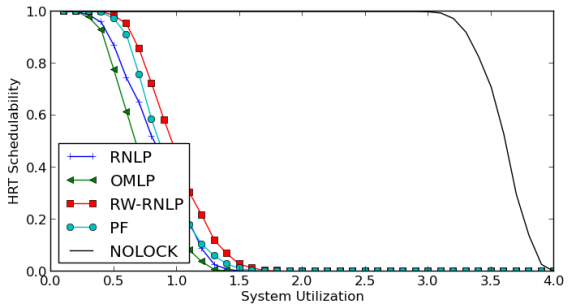

Figure 770: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

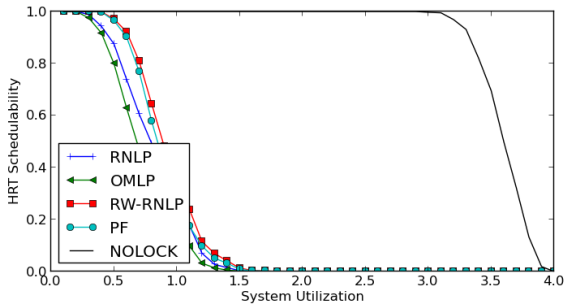

Figure 771: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

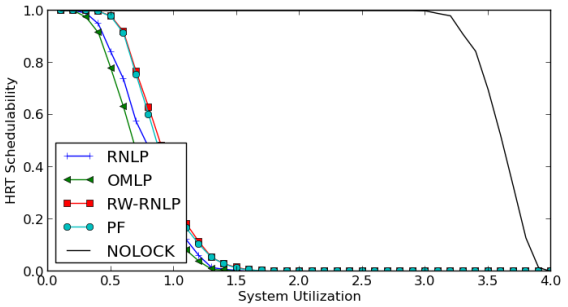

Figure 772: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

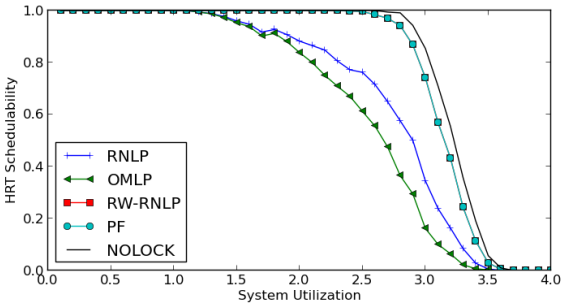

Figure 773: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

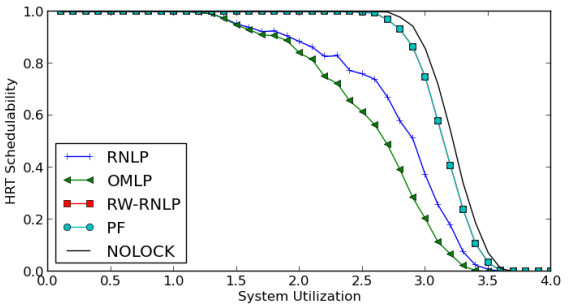

Figure 774: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

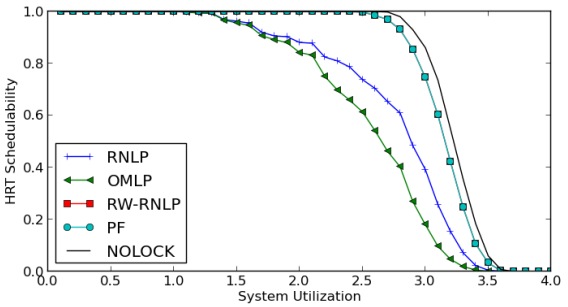

Figure 775: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

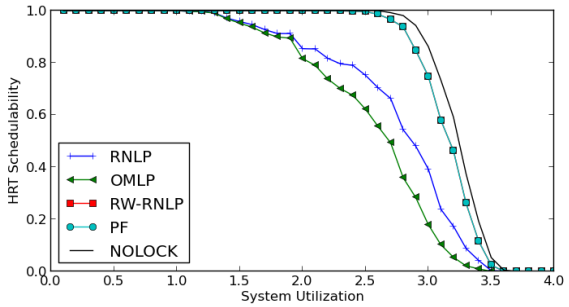

Figure 776: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

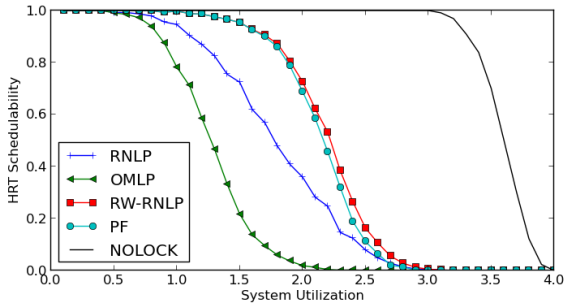

Figure 777: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

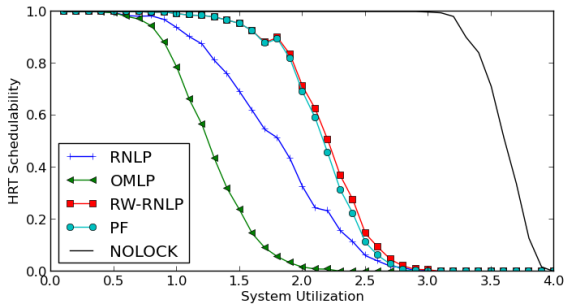

Figure 778: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

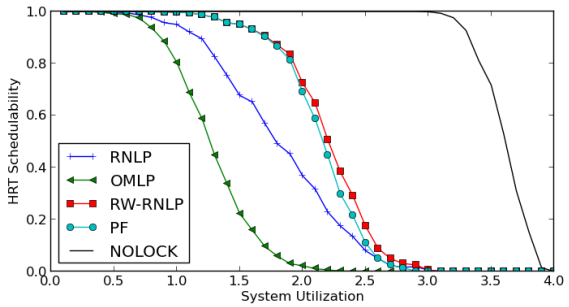

Figure 779: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

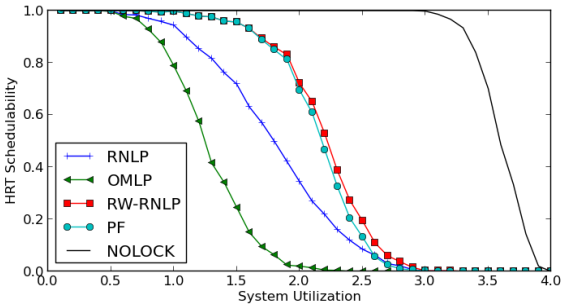

Figure 780: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

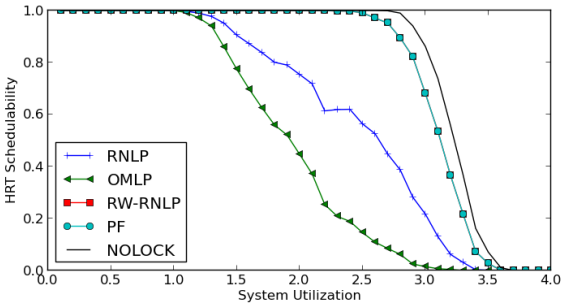

Figure 781: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

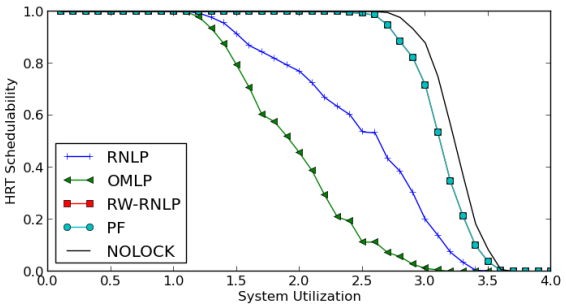

Figure 782: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

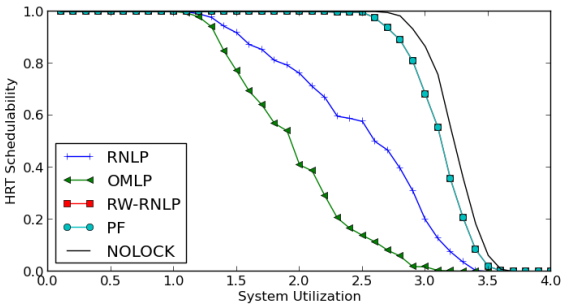

Figure 783: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

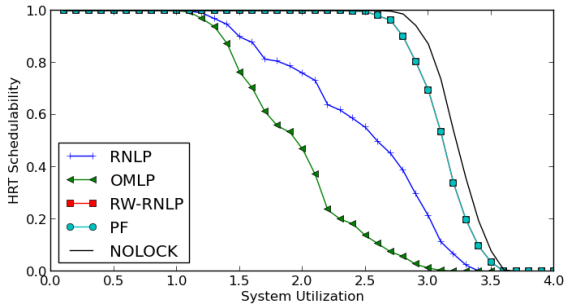

Figure 784: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

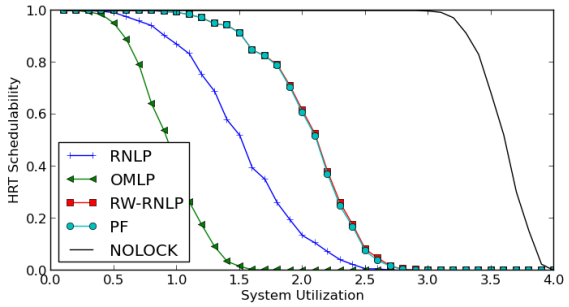

Figure 785: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

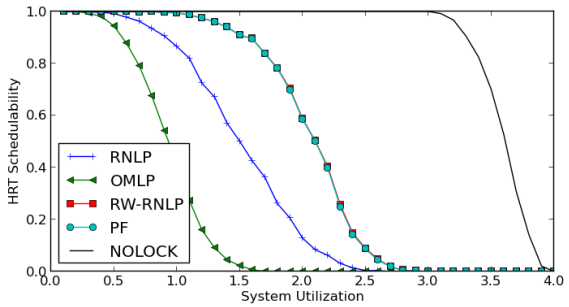

Figure 786: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

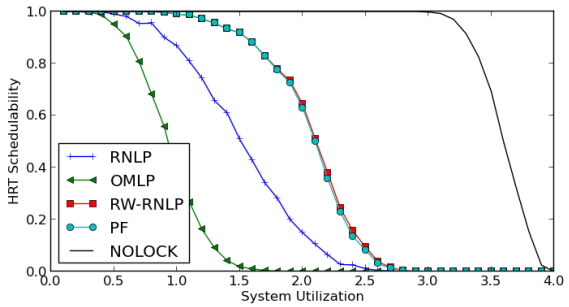

Figure 787: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

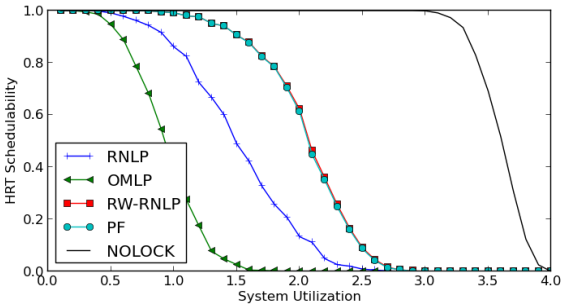

Figure 788: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

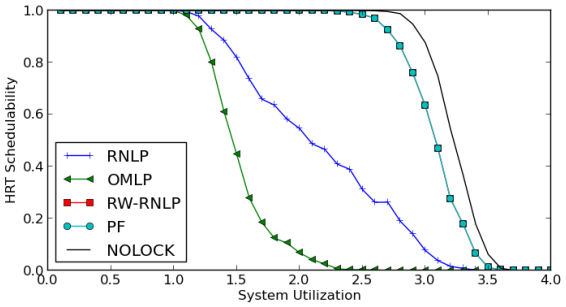

Figure 789: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

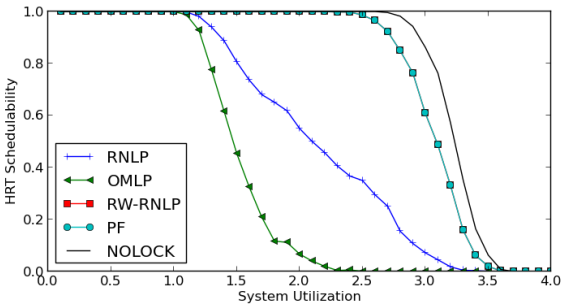

Figure 790: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

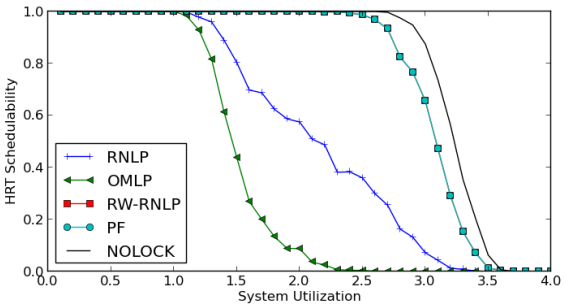

Figure 791: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

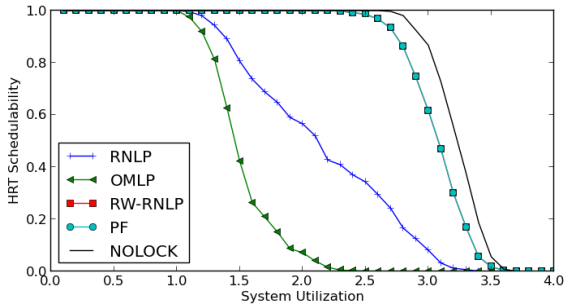

Figure 792: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

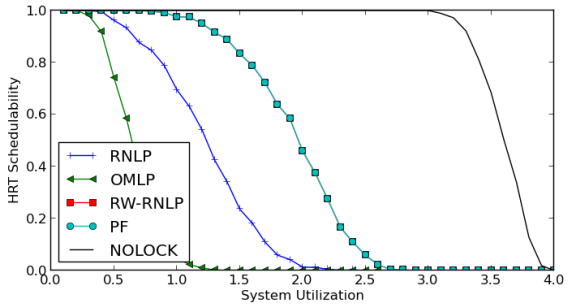

Figure 793: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

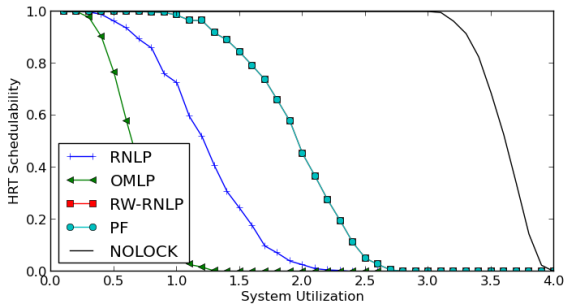

Figure 794: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

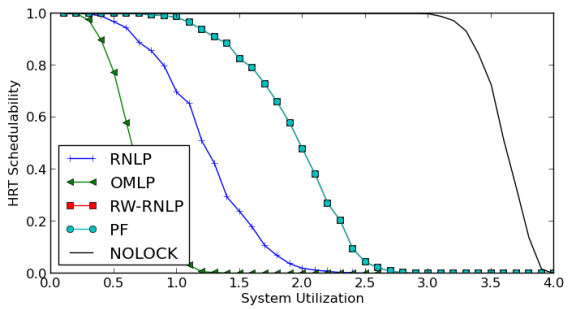

Figure 795: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

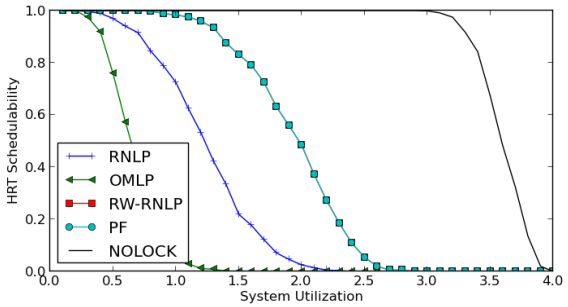

Figure 796: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

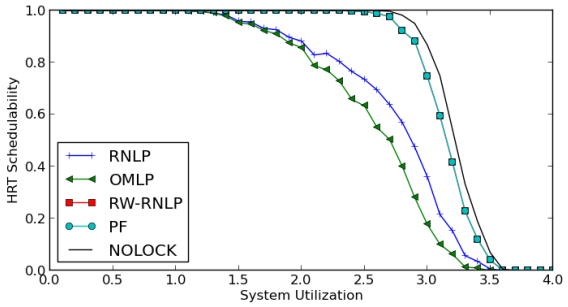

Figure 797: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

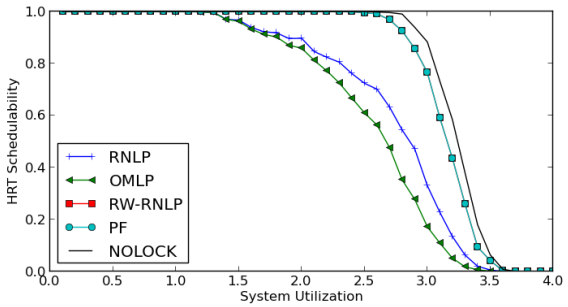

Figure 798: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

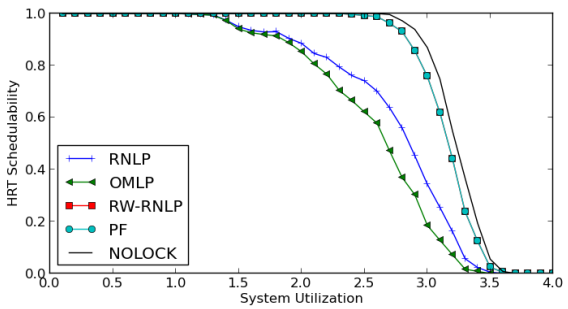

Figure 799: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

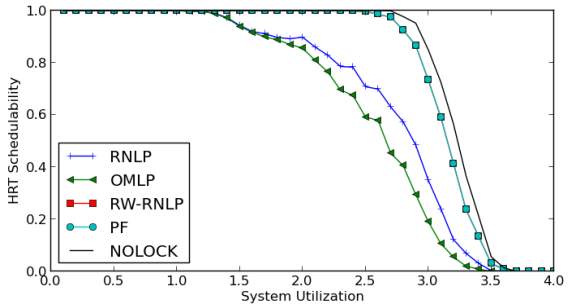

Figure 800: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

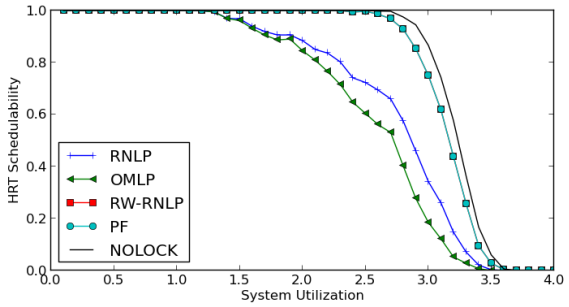

Figure 801: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

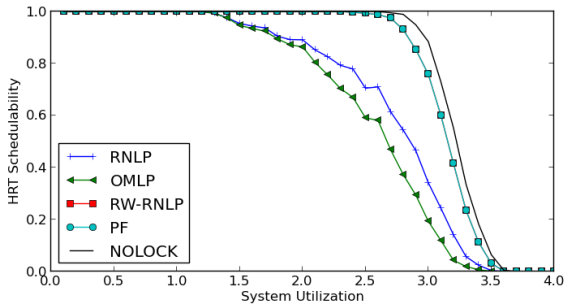

Figure 802: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

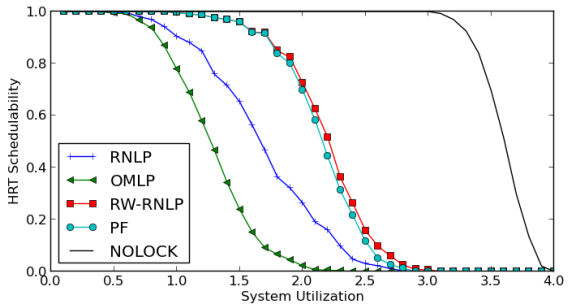

Figure 803: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

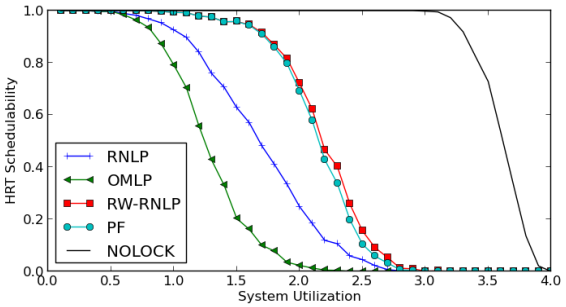

Figure 804: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

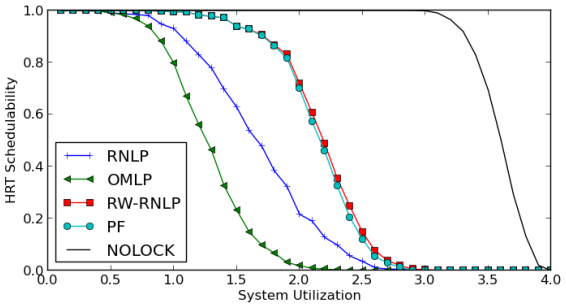

Figure 805: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

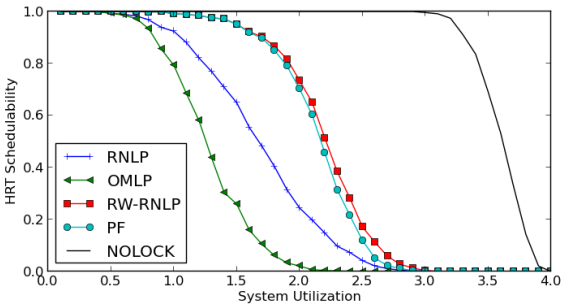

Figure 806: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

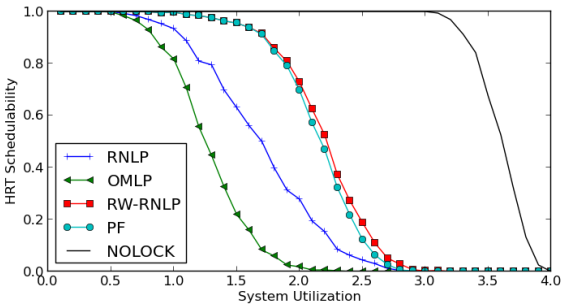

Figure 807: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

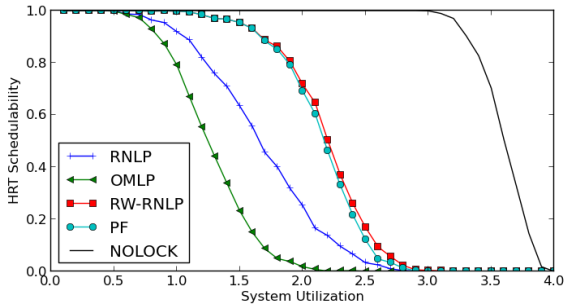

Figure 808: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

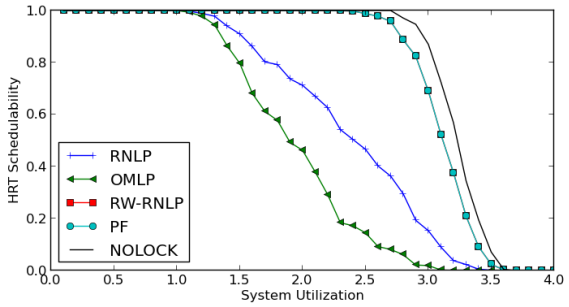

Figure 809: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

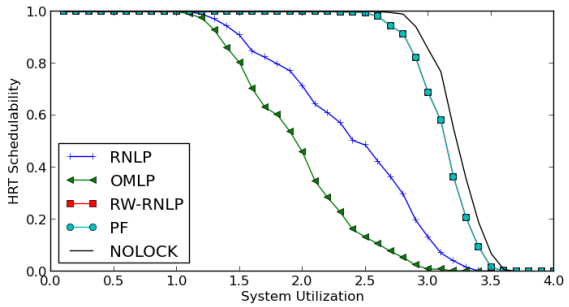

Figure 810: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

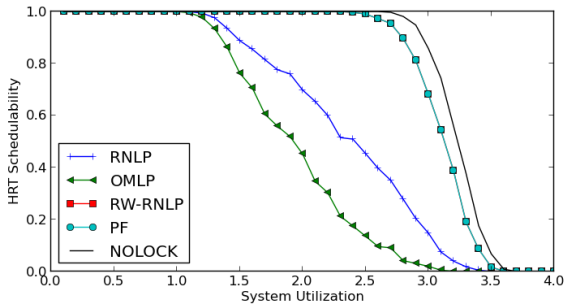

Figure 811: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

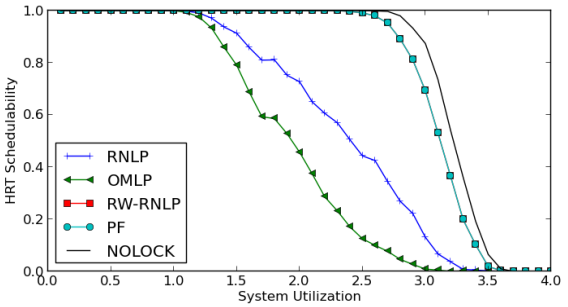

Figure 812: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

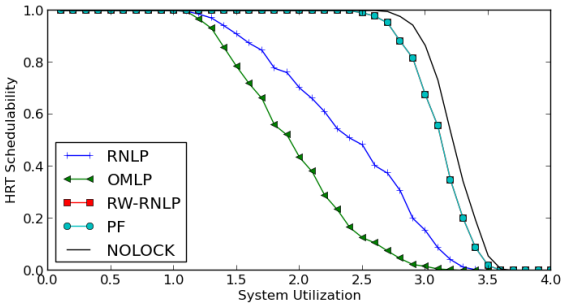

Figure 813: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

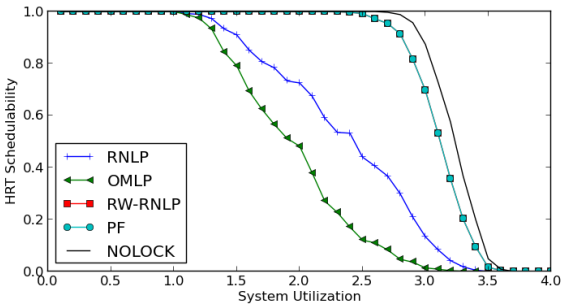

Figure 814: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

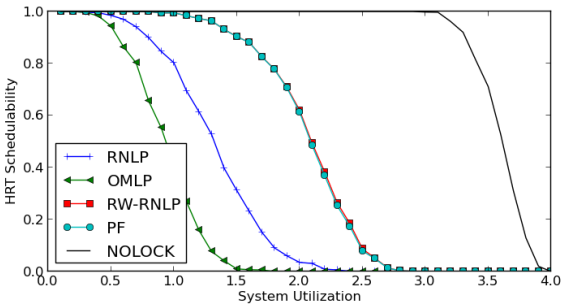

Figure 815: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

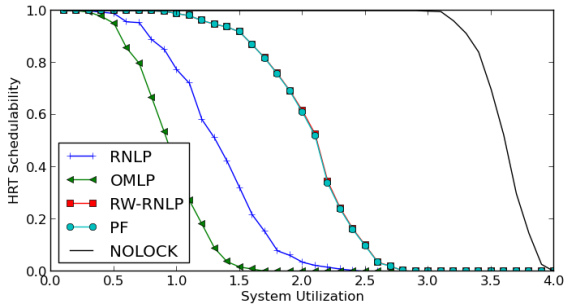

Figure 816: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

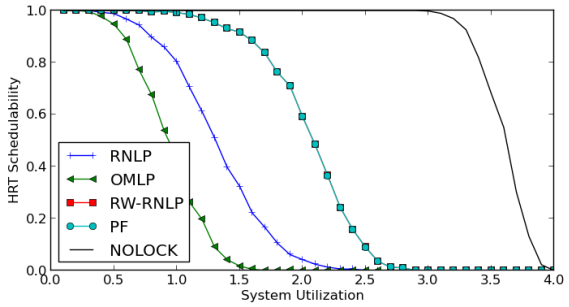

Figure 817: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

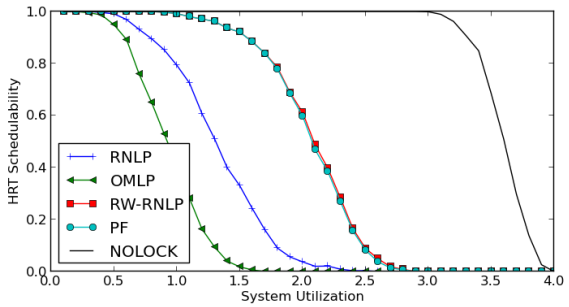

Figure 818: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

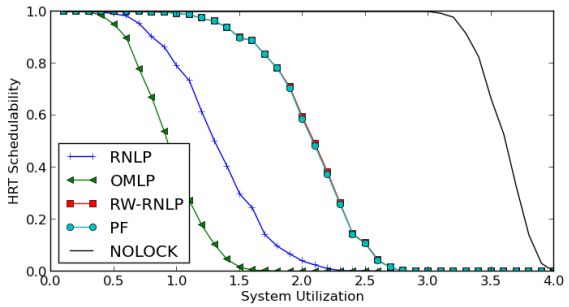

Figure 819: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

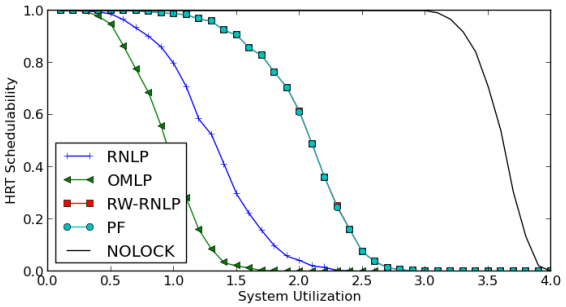

Figure 820: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

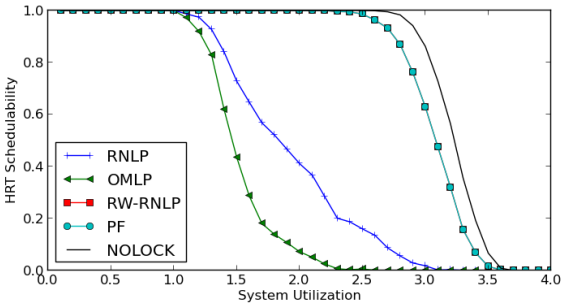

Figure 821: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

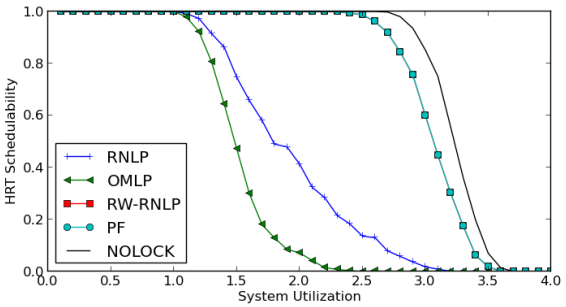

Figure 822: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

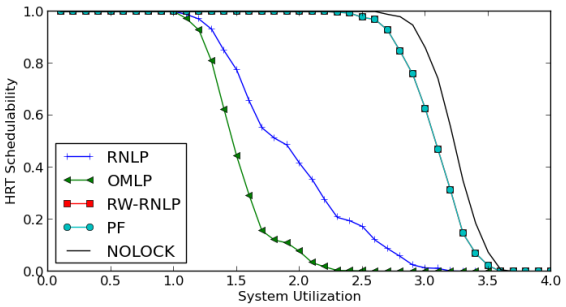

Figure 823: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

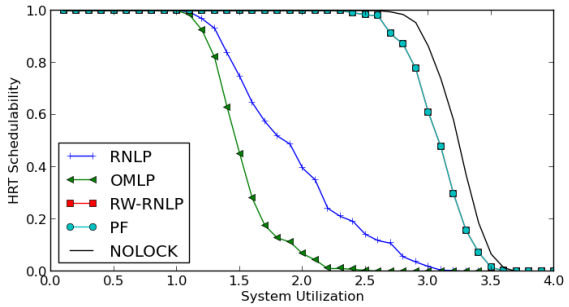

Figure 824: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

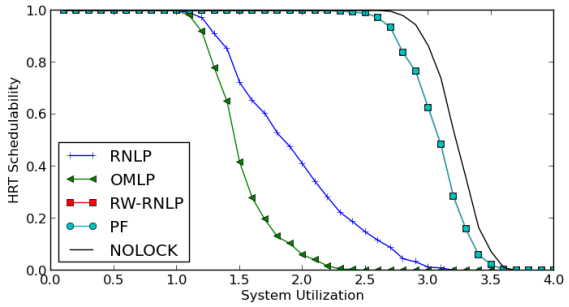

Figure 825: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

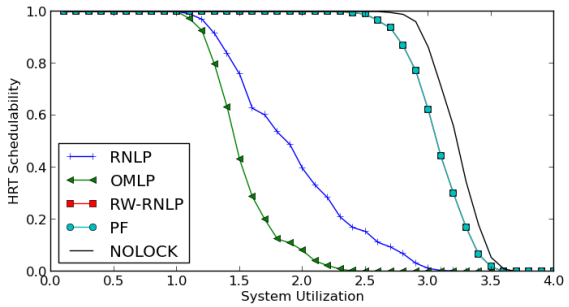

Figure 826: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

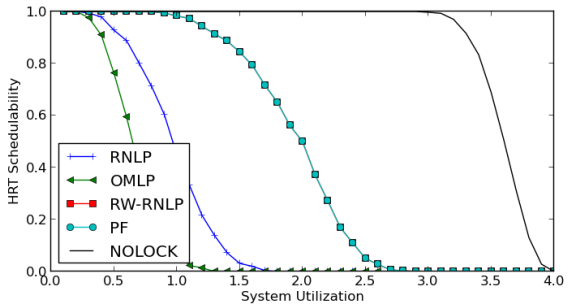

Figure 827: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

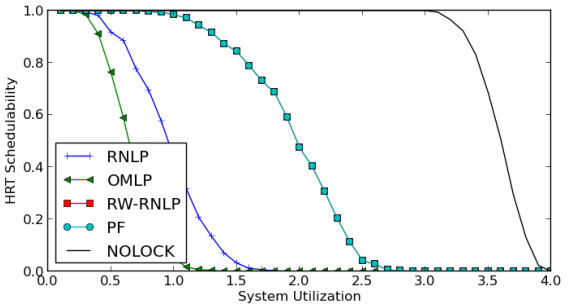

Figure 828: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

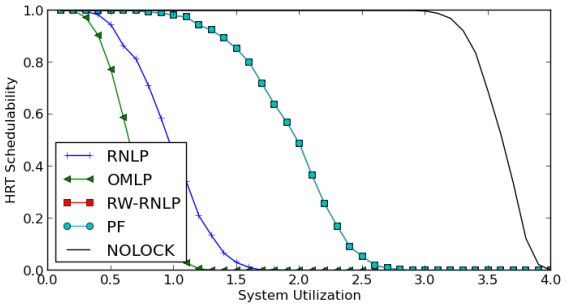

Figure 829: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

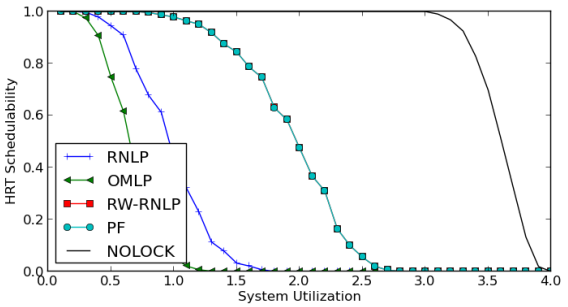

Figure 830: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

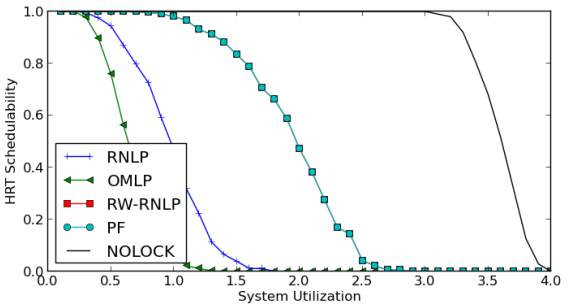

Figure 831: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

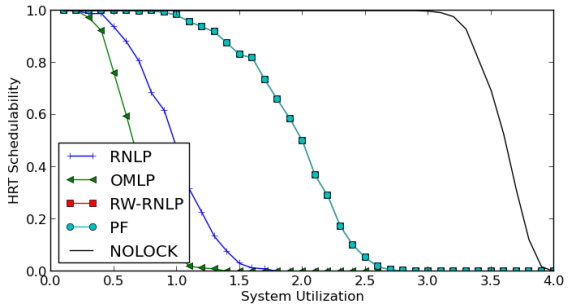

Figure 832: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

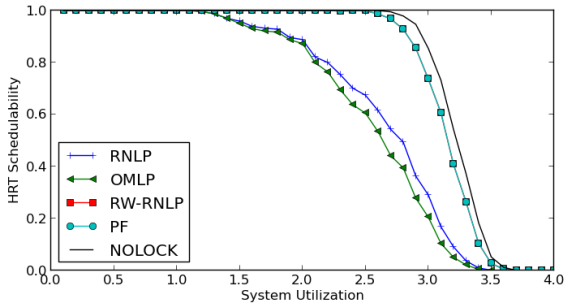

Figure 833: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

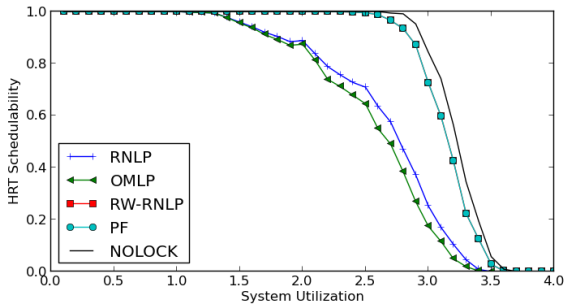

Figure 834: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

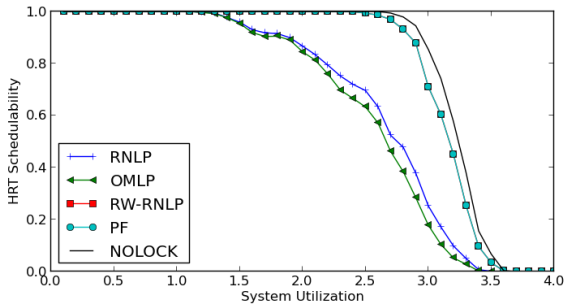

Figure 835: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

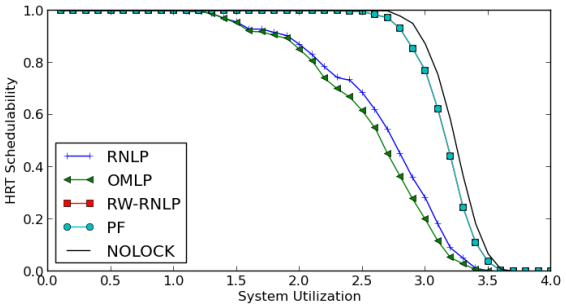

Figure 836: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

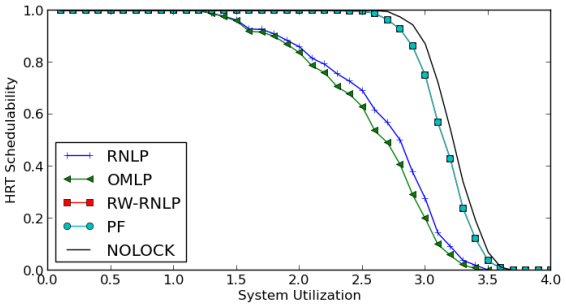

Figure 837: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

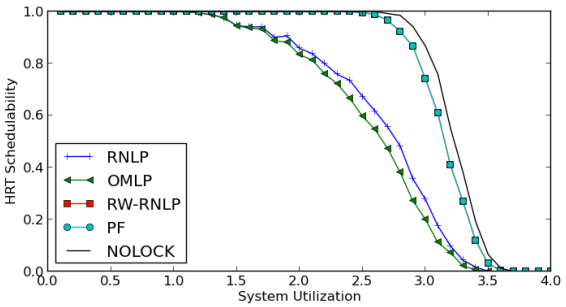

Figure 838: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

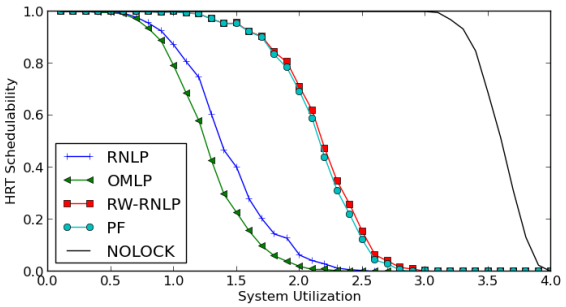

Figure 839: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

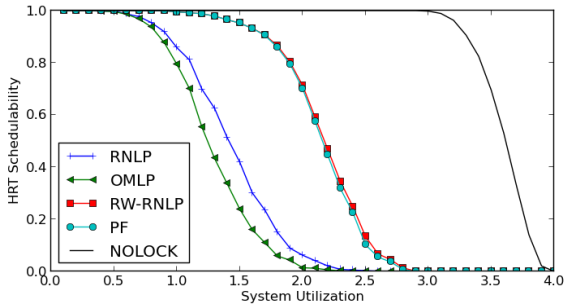

Figure 840: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

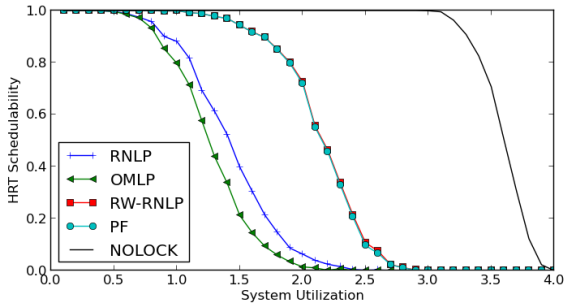

Figure 841: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

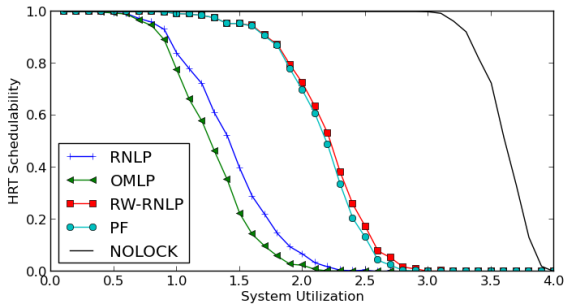

Figure 842: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

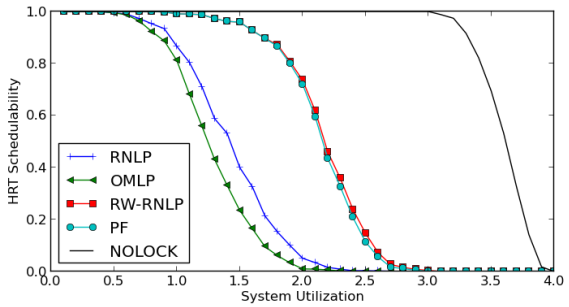

Figure 843: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

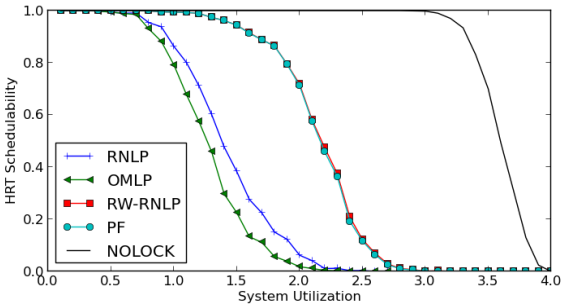

Figure 844: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

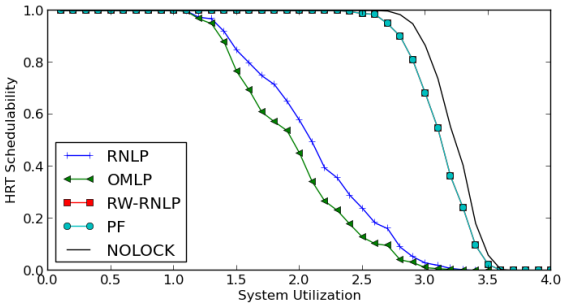

Figure 845: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

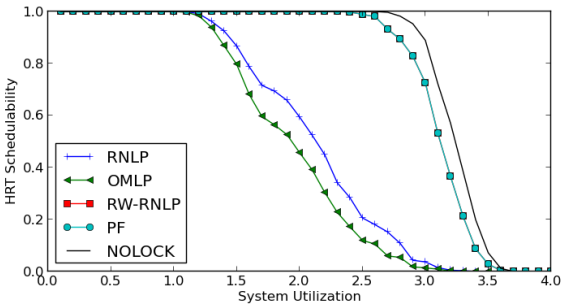

Figure 846: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

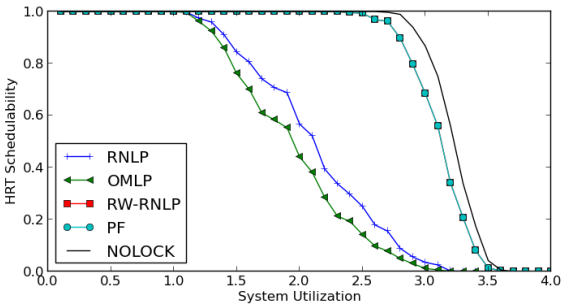

Figure 847: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

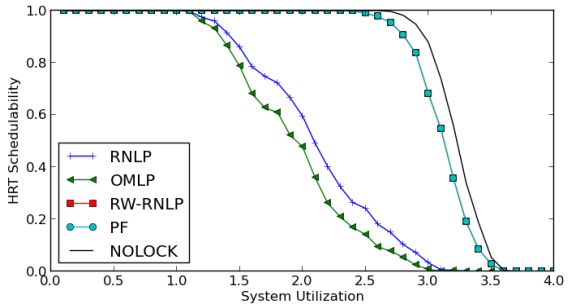

Figure 848: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

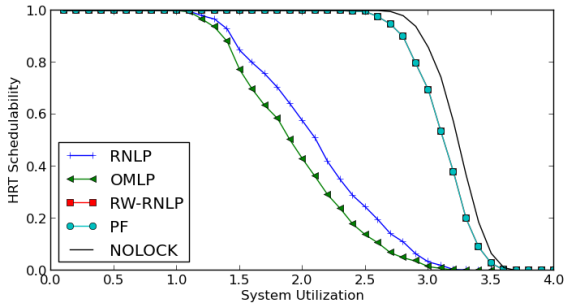

Figure 849: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

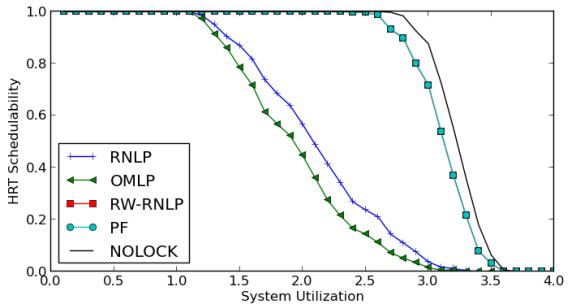

Figure 850: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

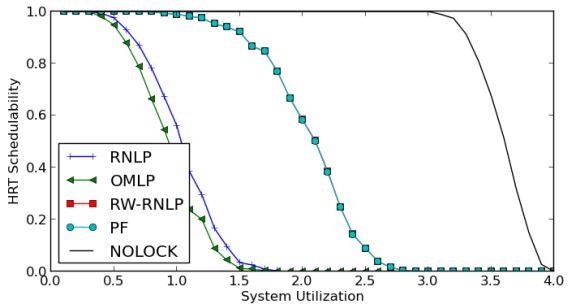

Figure 851: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

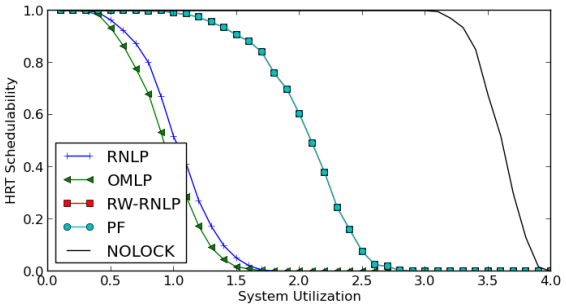

Figure 852: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

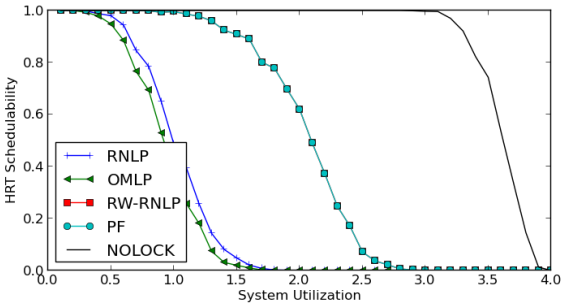

Figure 853: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

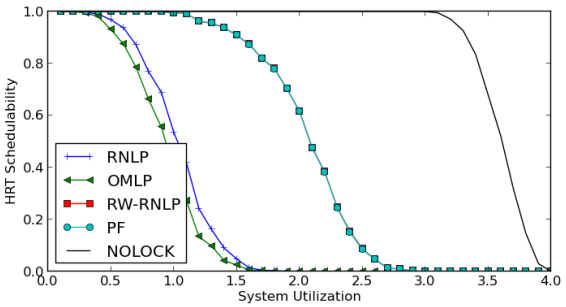

Figure 854: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

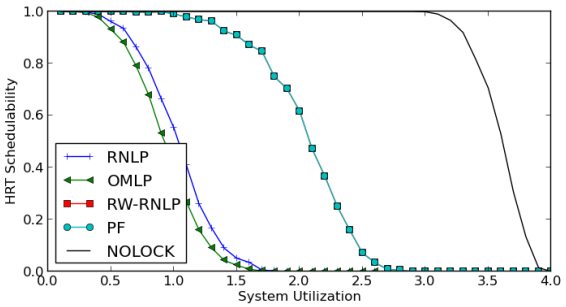

Figure 855: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

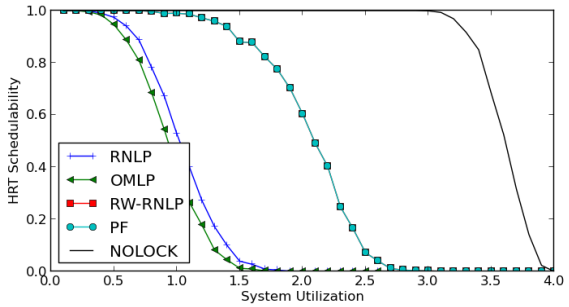

Figure 856: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

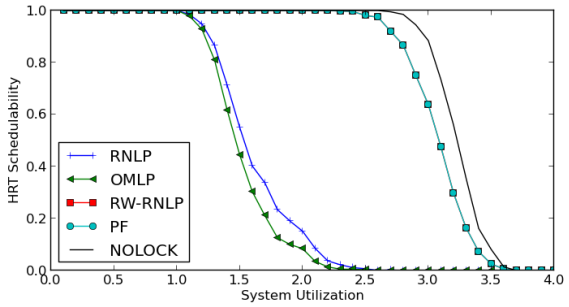

Figure 857: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

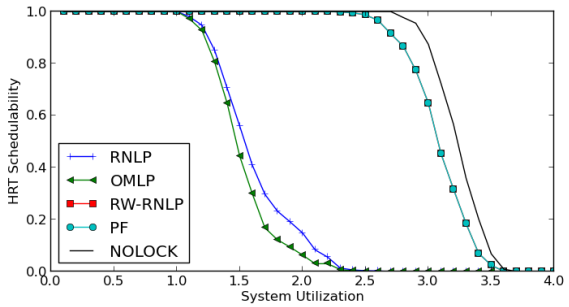

Figure 858: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

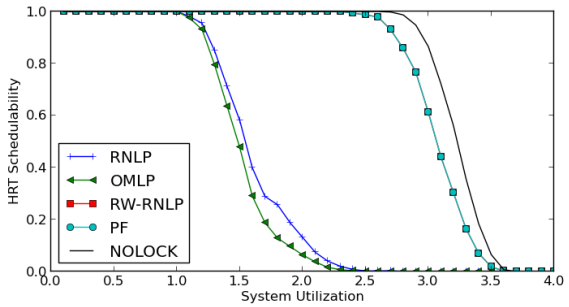

Figure 859: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

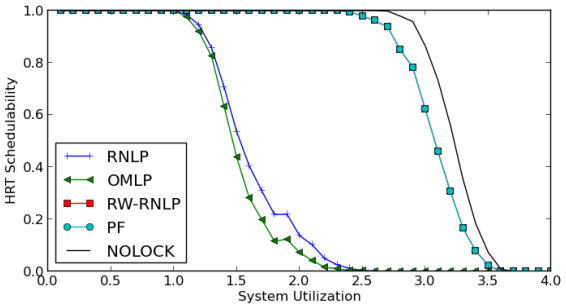

Figure 860: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

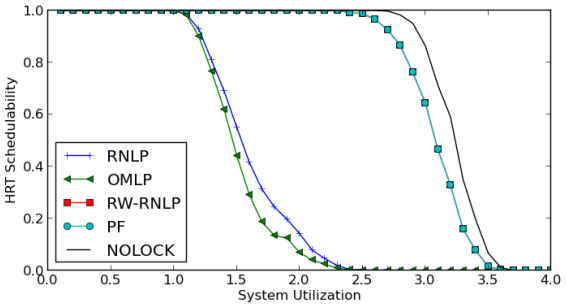

Figure 861: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

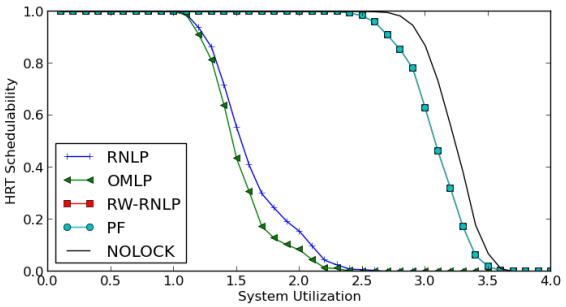

Figure 862: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

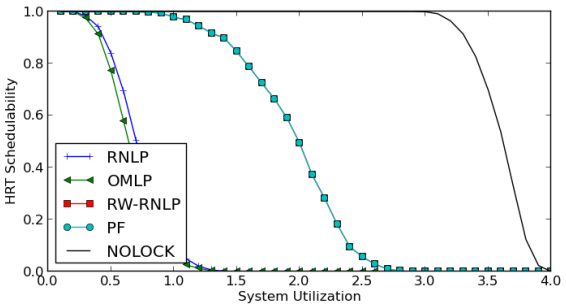

Figure 863: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

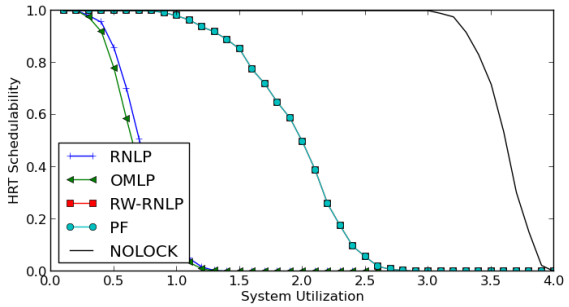

Figure 864: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

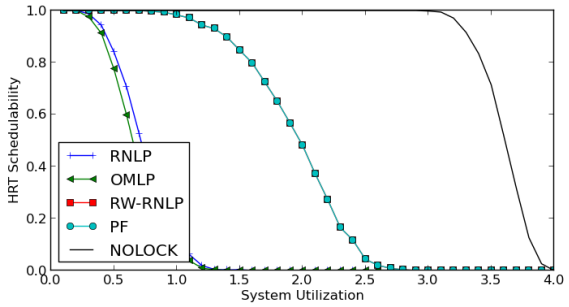

Figure 865: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

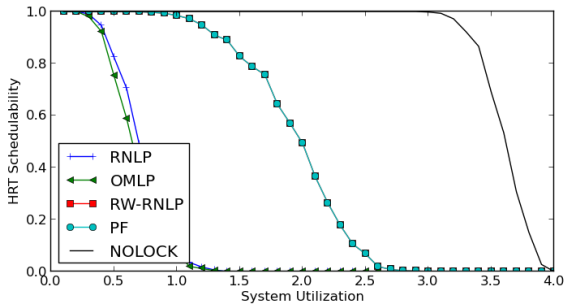

Figure 866: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

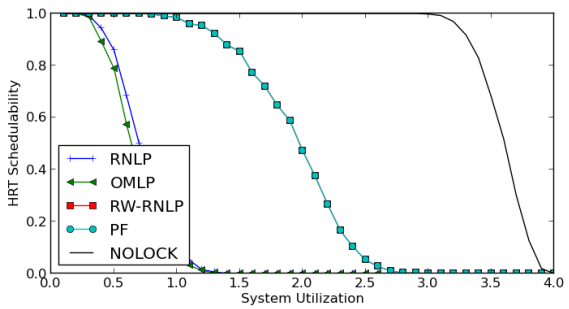

Figure 867: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

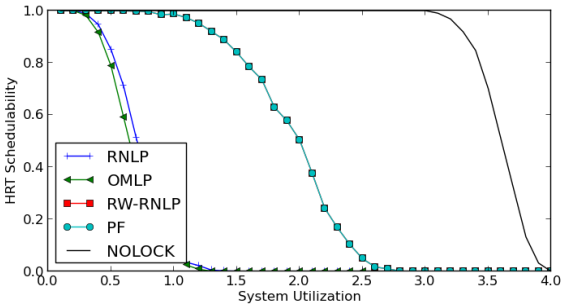

Figure 868: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: large, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

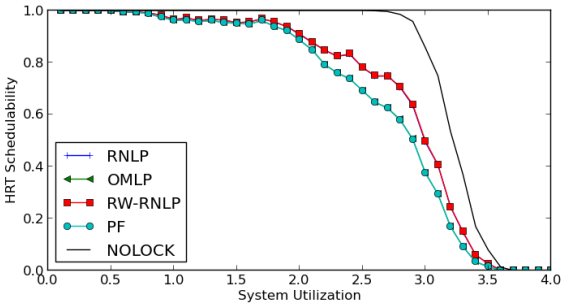

Figure 869: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

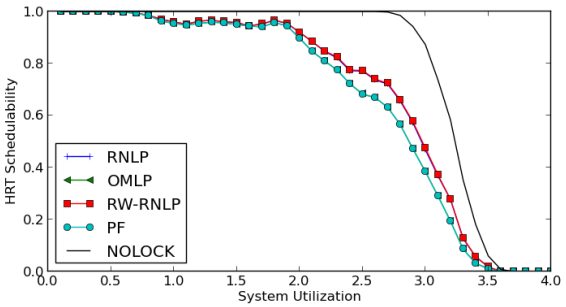

Figure 870: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

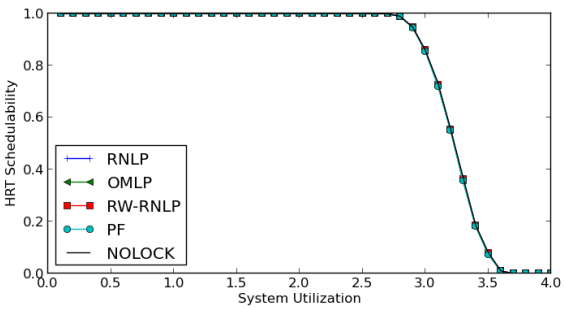

Figure 871: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

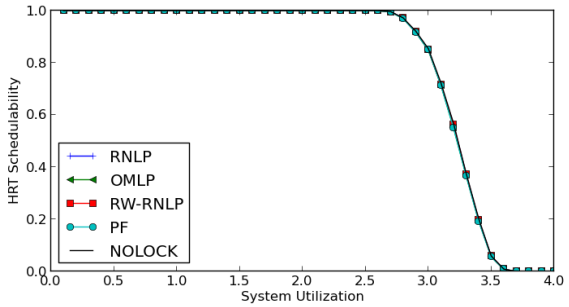

Figure 872: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

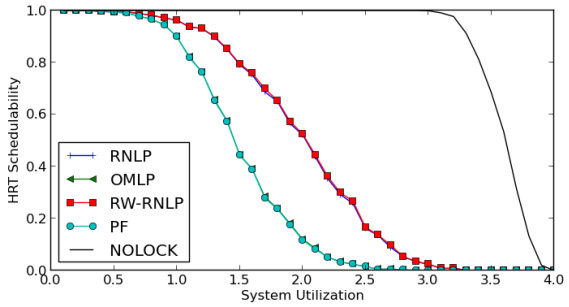

Figure 873: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

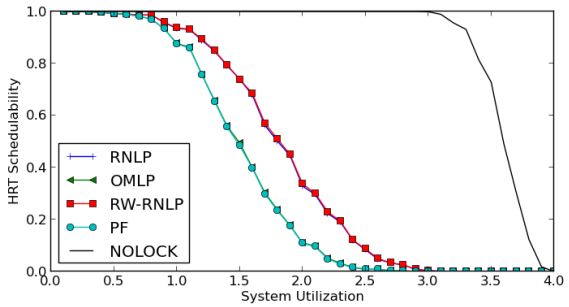

Figure 874: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

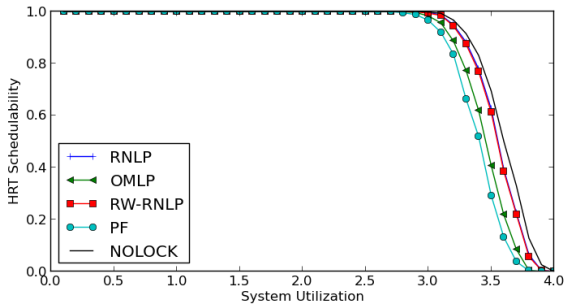

Figure 875: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

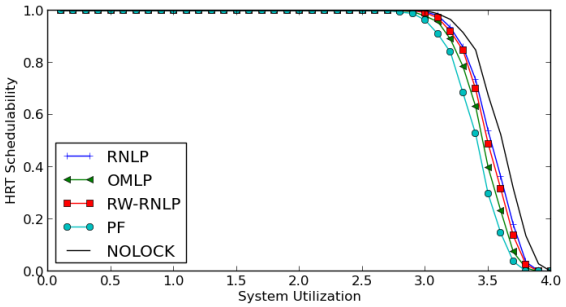

Figure 876: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

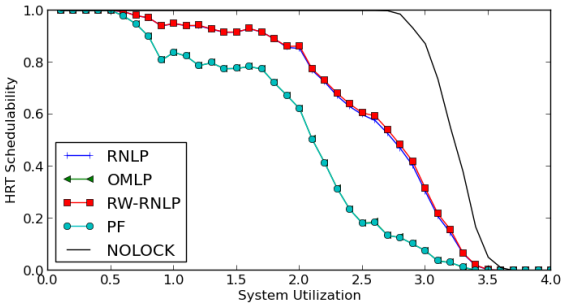

Figure 877: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

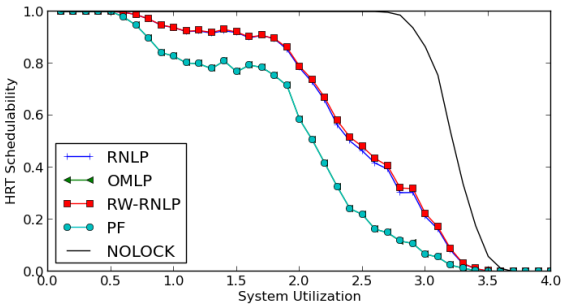

Figure 878: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

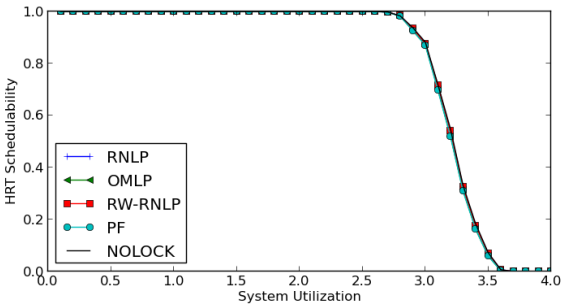

Figure 879: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

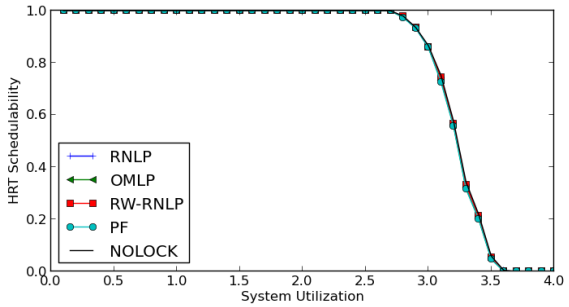

Figure 880: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

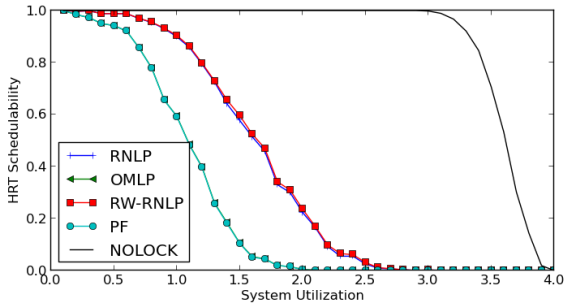

Figure 881: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

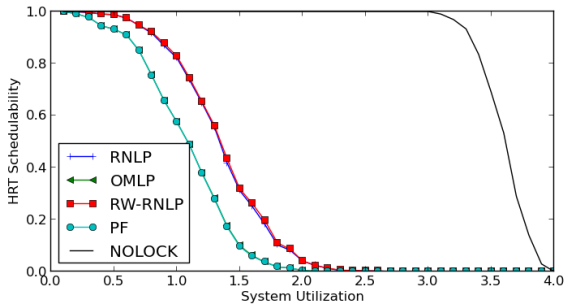

Figure 882: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

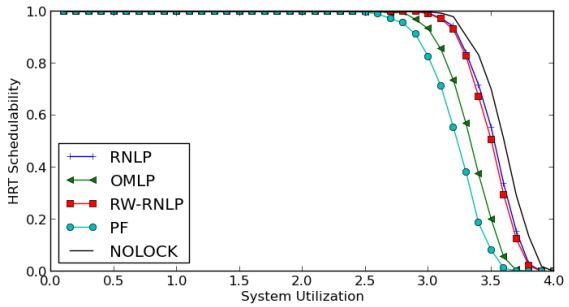

Figure 883: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

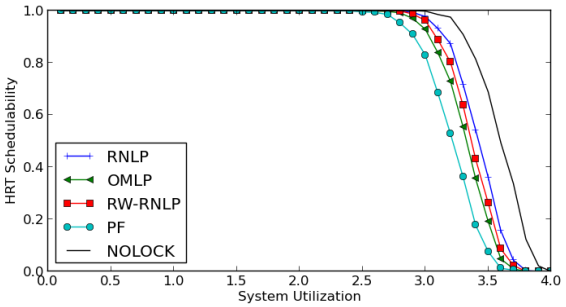

Figure 884: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

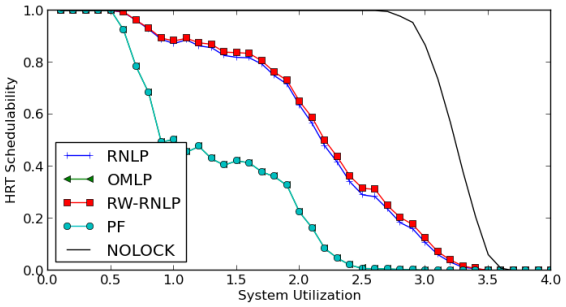

Figure 885: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

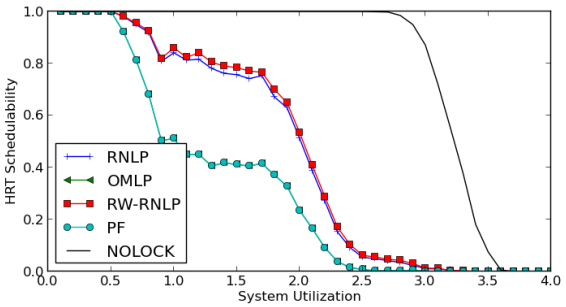

Figure 886: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

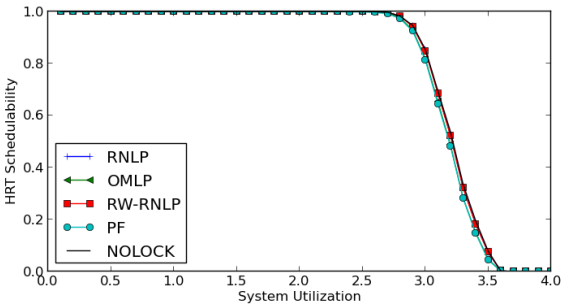

Figure 887: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

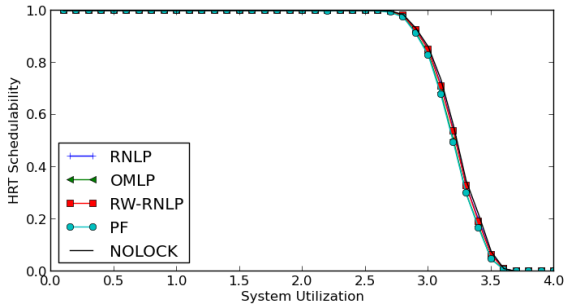

Figure 888: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

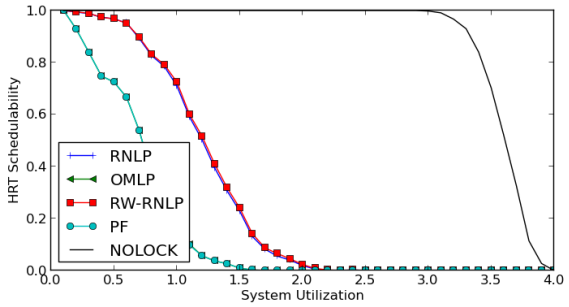

Figure 889: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

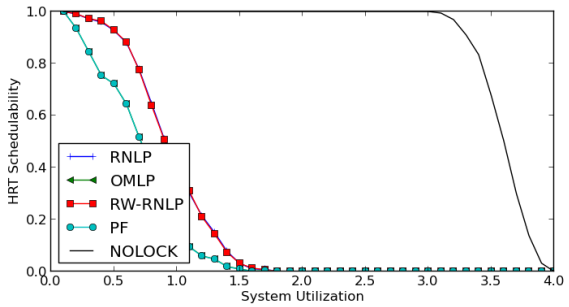

Figure 890: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

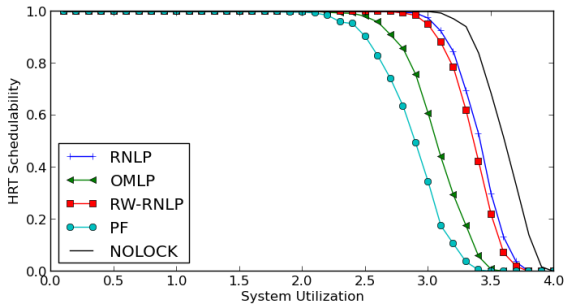

Figure 891: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

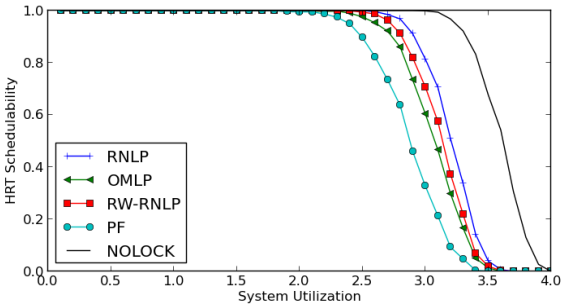

Figure 892: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

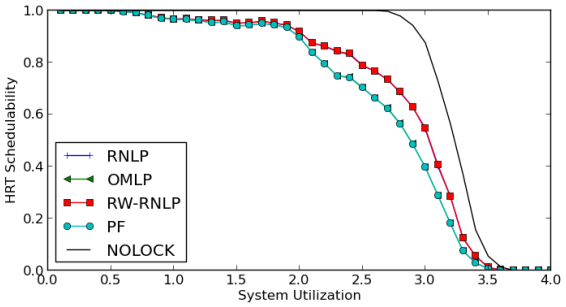

Figure 893: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

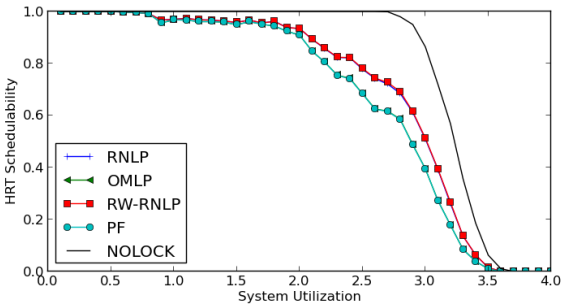

Figure 894: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

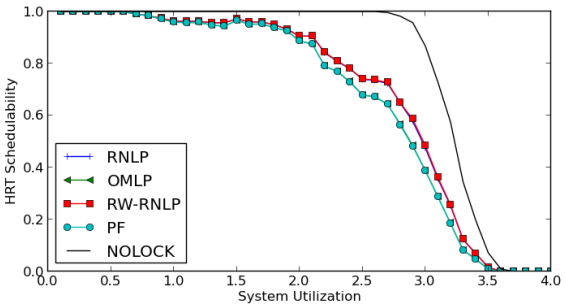

Figure 895: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

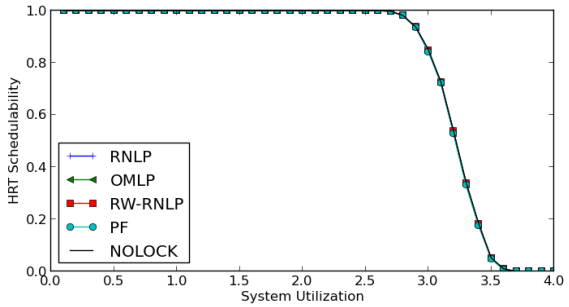

Figure 896: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

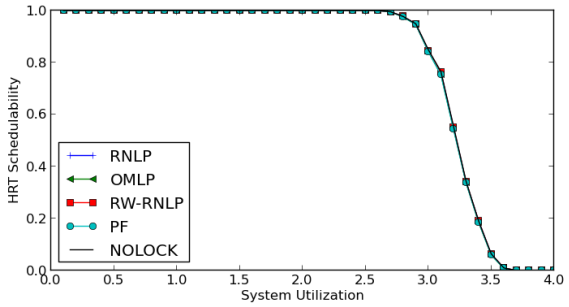

Figure 897: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

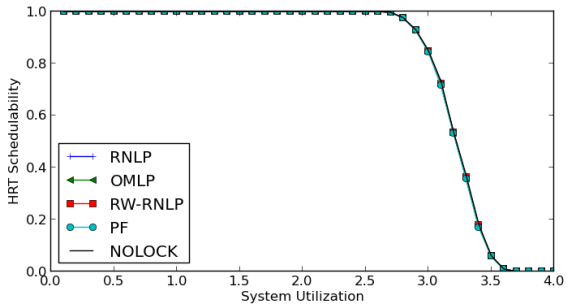

Figure 898: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

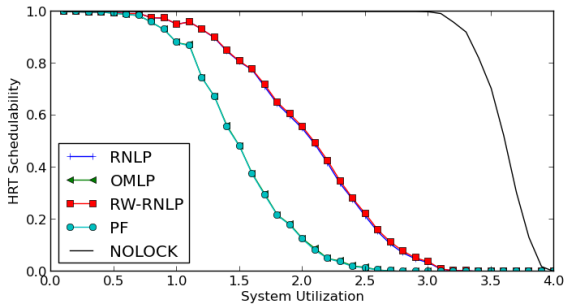

Figure 899: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

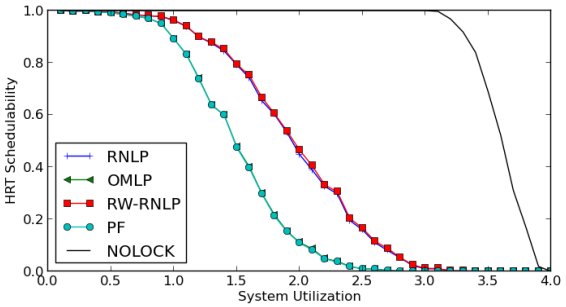

Figure 900: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

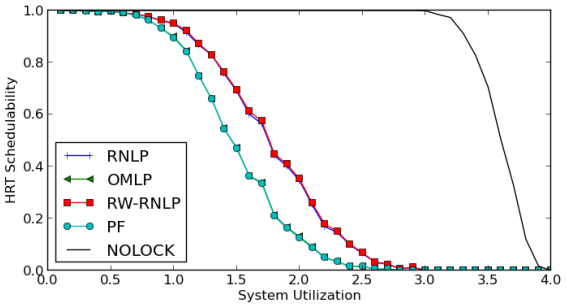

Figure 901: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

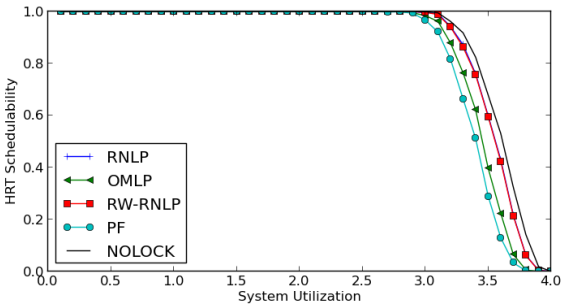

Figure 902: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

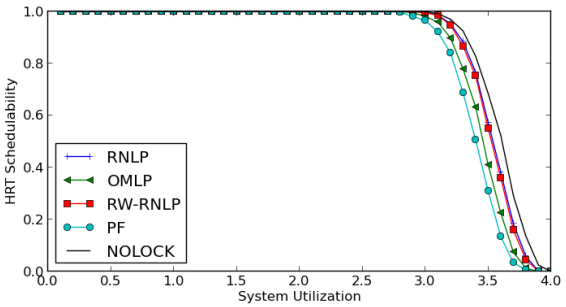

Figure 903: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

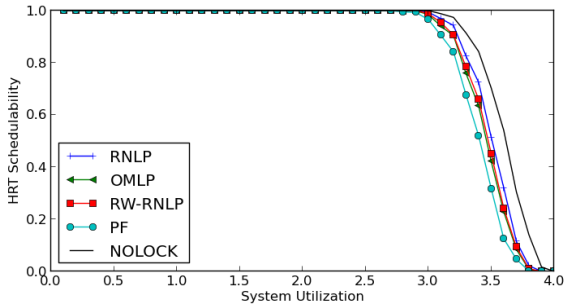

Figure 904: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

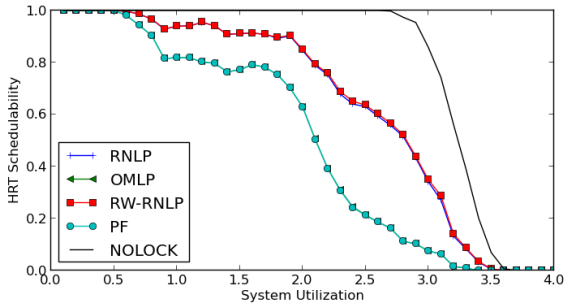

Figure 905: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

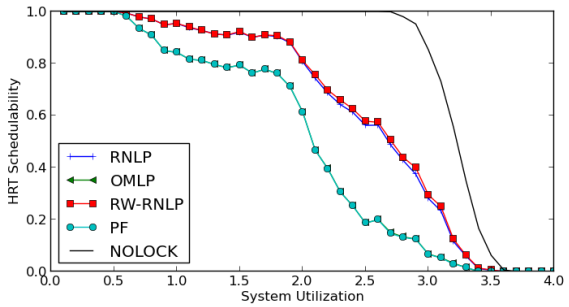

Figure 906: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

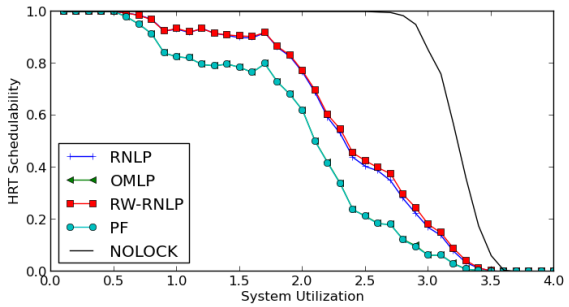

Figure 907: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

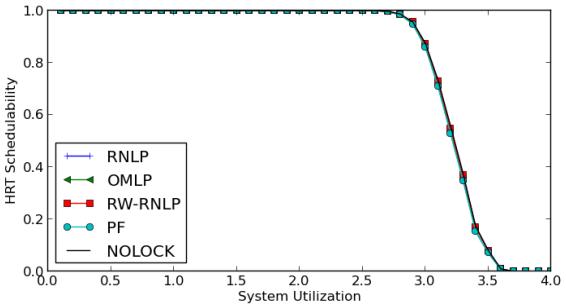

Figure 908: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

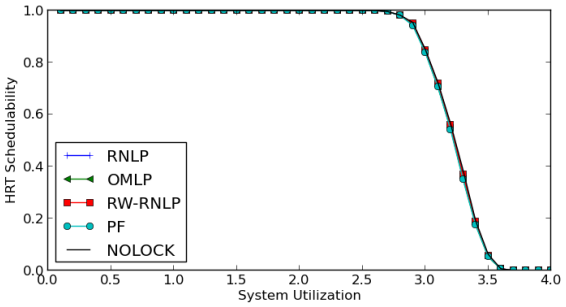

Figure 909: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

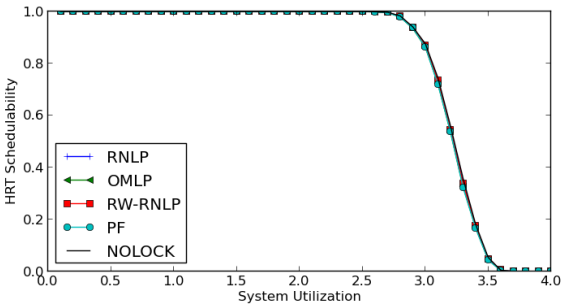

Figure 910: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

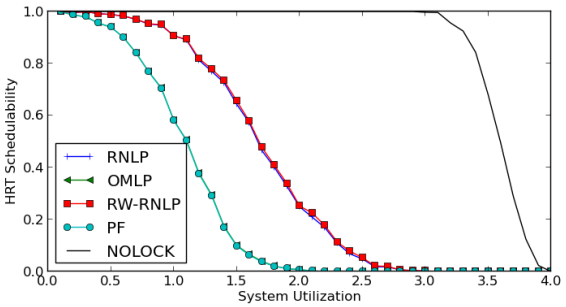

Figure 911: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

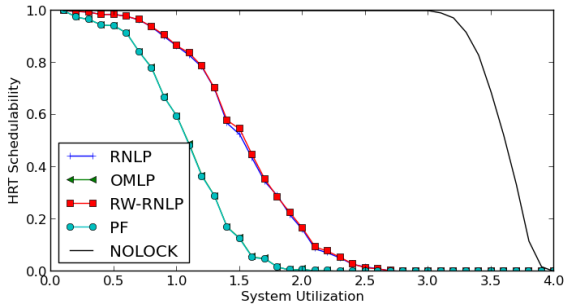

Figure 912: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

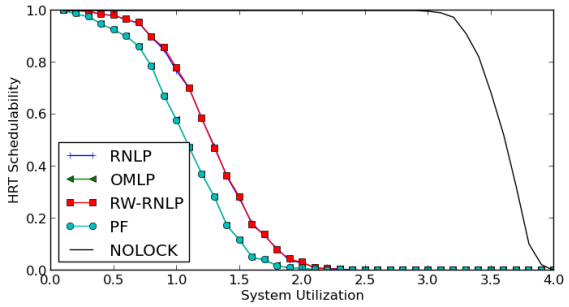

Figure 913: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

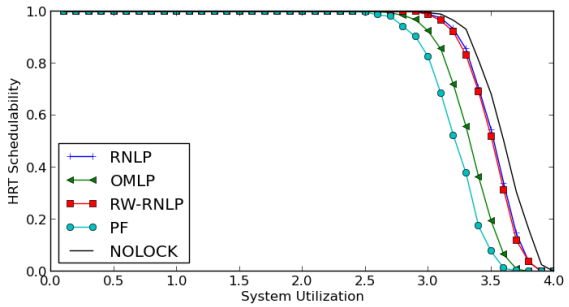

Figure 914: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

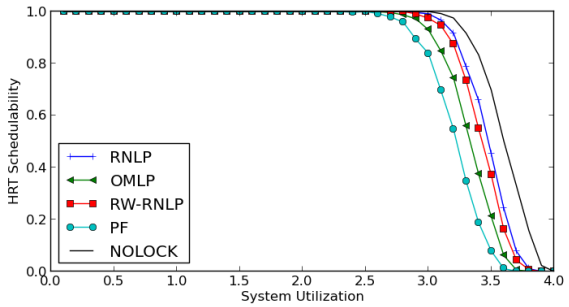

Figure 915: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

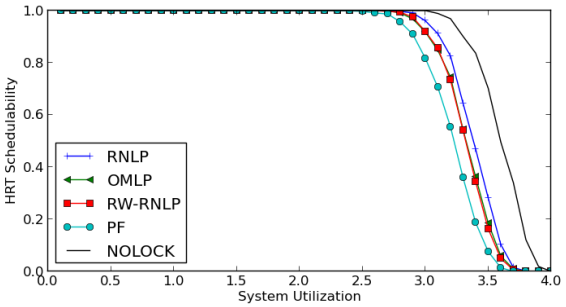

Figure 916: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

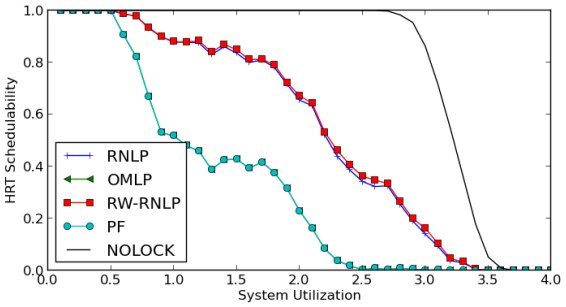

Figure 917: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

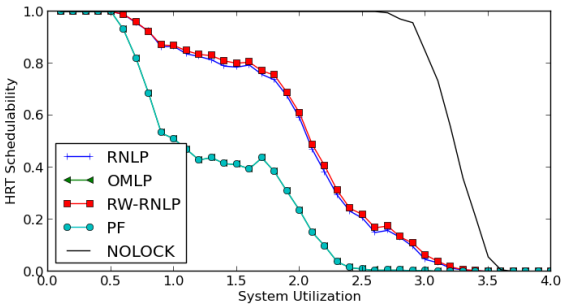

Figure 918: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

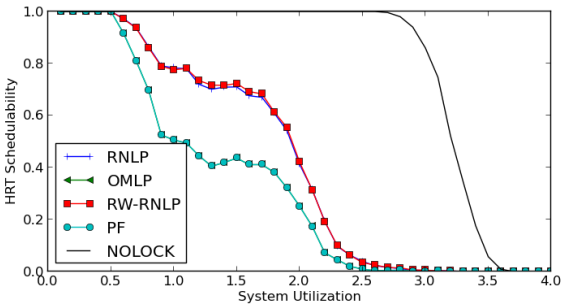

Figure 919: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

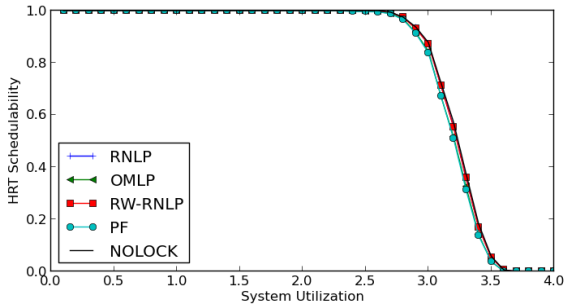

Figure 920: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

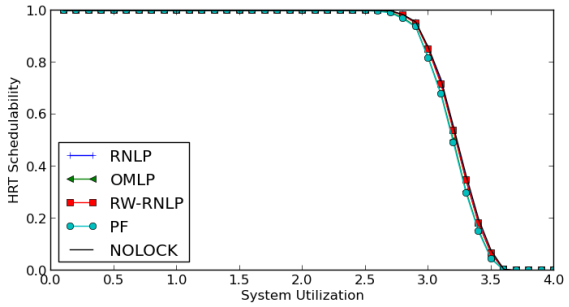

Figure 921: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

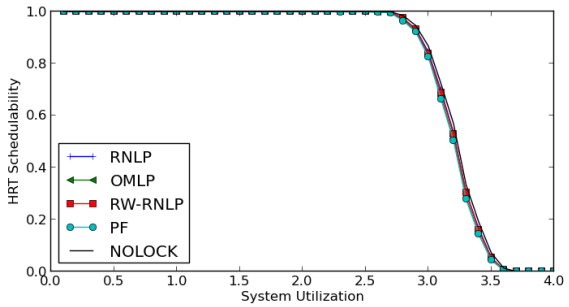

Figure 922: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

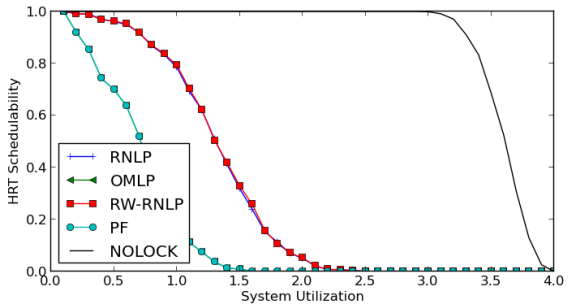

Figure 923: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

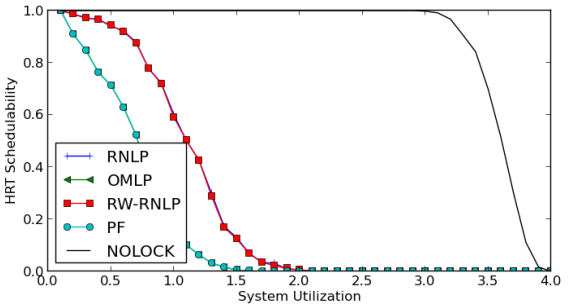

Figure 924: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

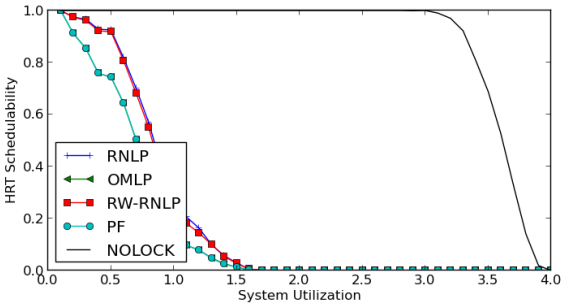

Figure 925: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

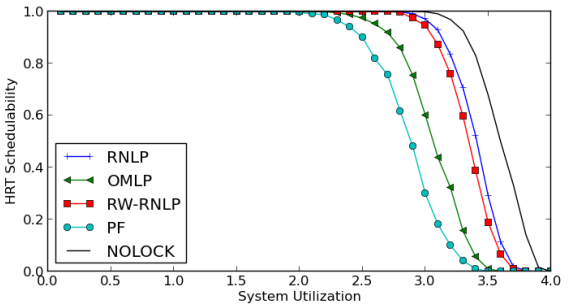

Figure 926: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

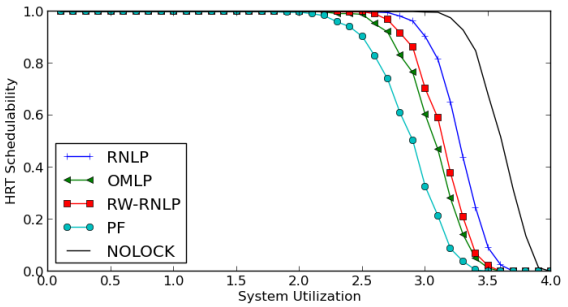

Figure 927: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

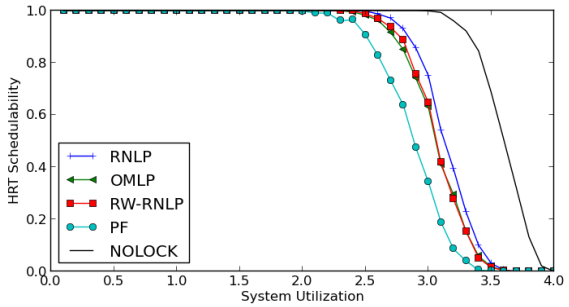

Figure 928: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

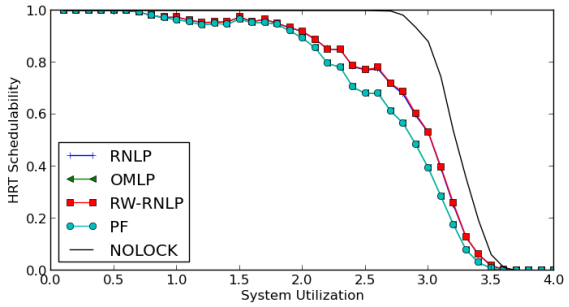

Figure 929: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

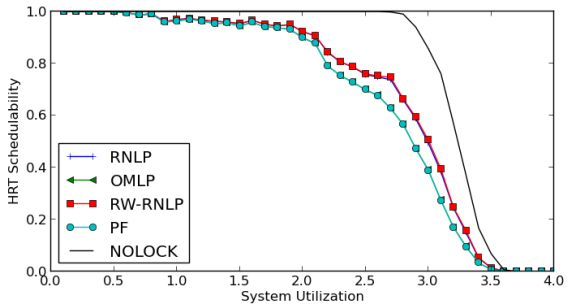

Figure 930: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

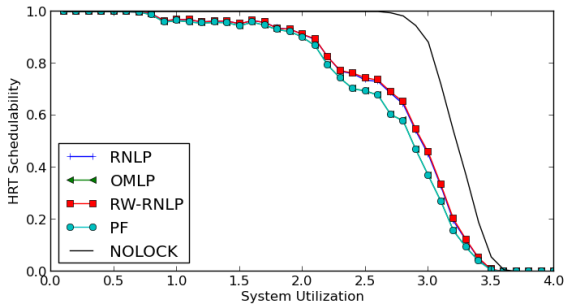

Figure 931: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

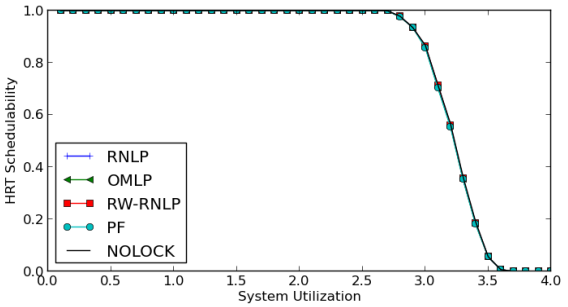

Figure 932: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

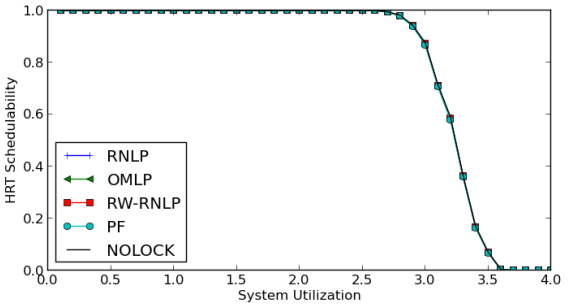

Figure 933: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

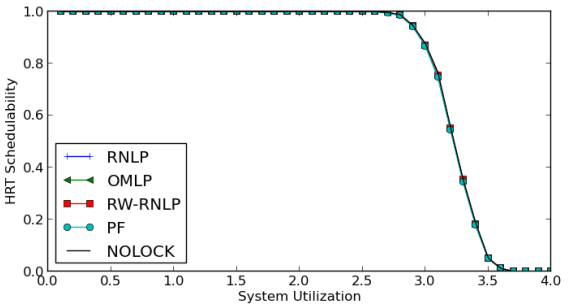

Figure 934: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

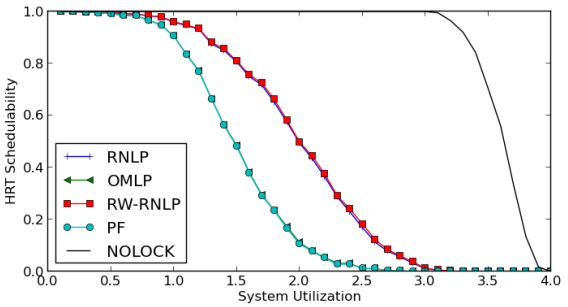

Figure 935: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

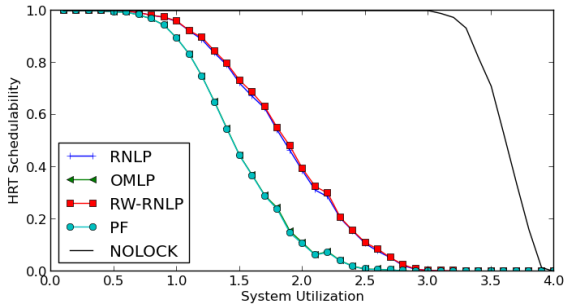

Figure 936: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

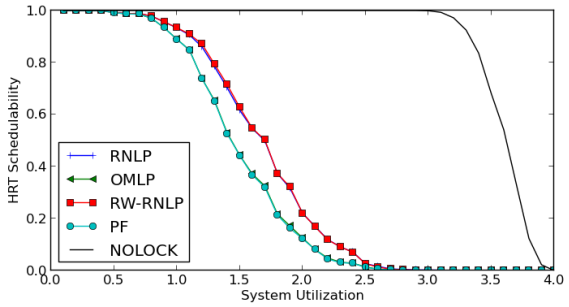

Figure 937: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

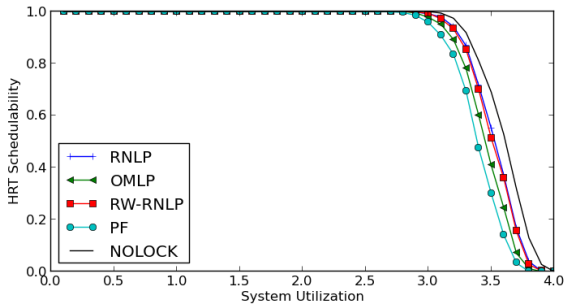

Figure 938: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

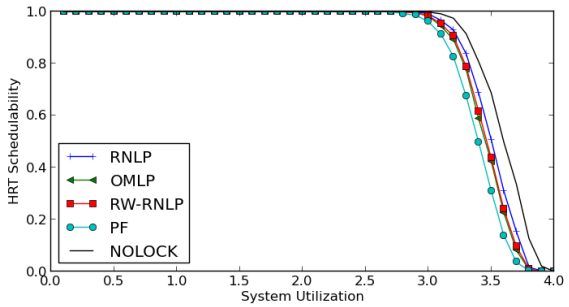

Figure 939: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

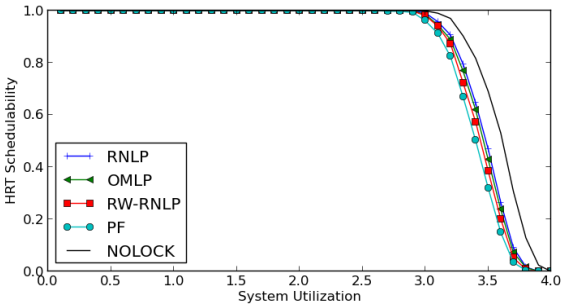

Figure 940: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

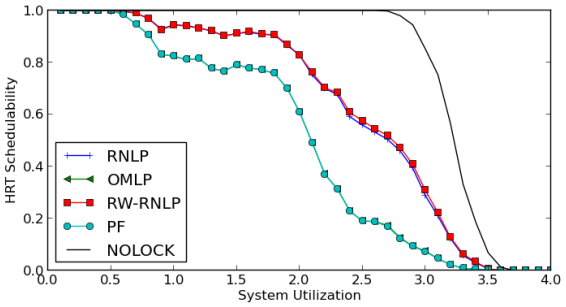

Figure 941: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

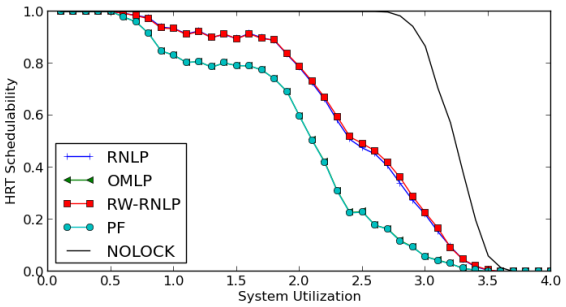

Figure 942: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

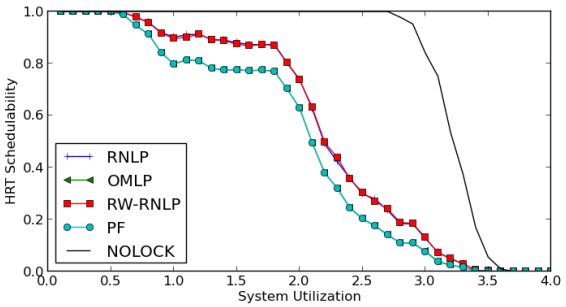

Figure 943: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

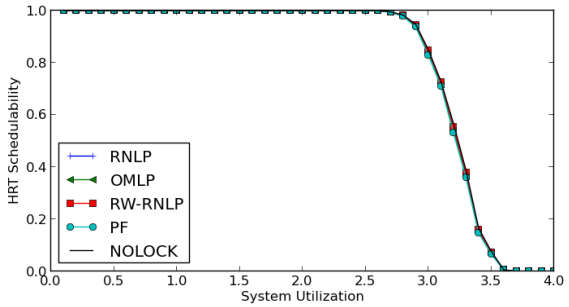

Figure 944: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

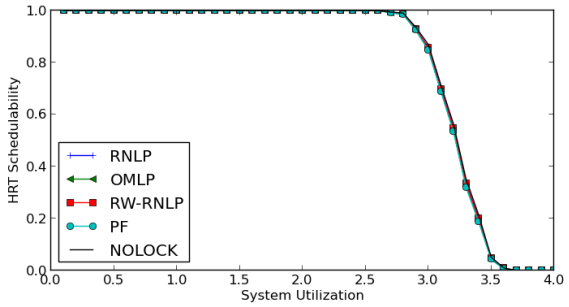

Figure 945: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

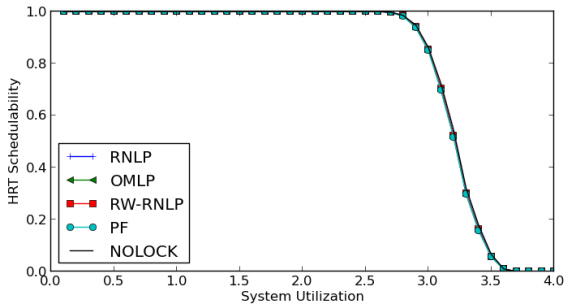

Figure 946: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

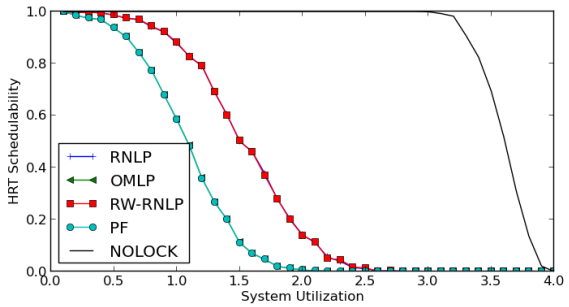

Figure 947: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

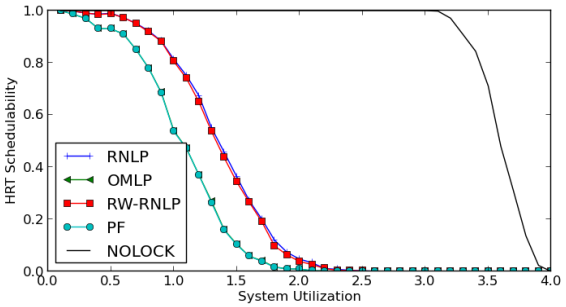

Figure 948: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

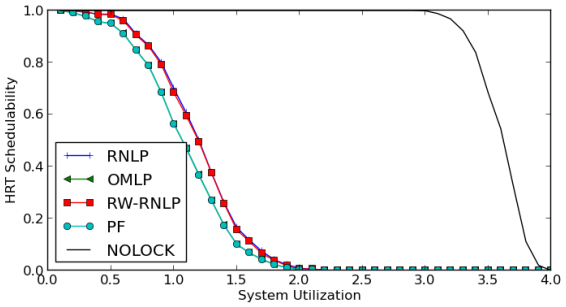

Figure 949: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

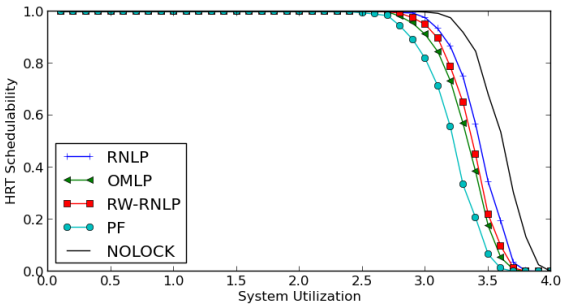

Figure 950: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

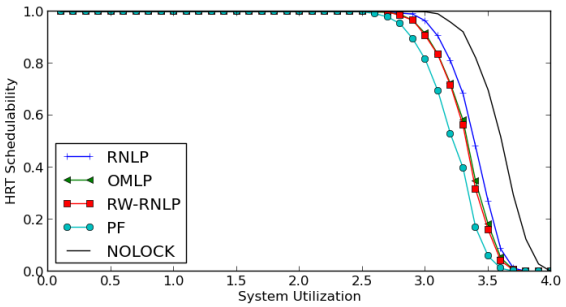

Figure 951: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

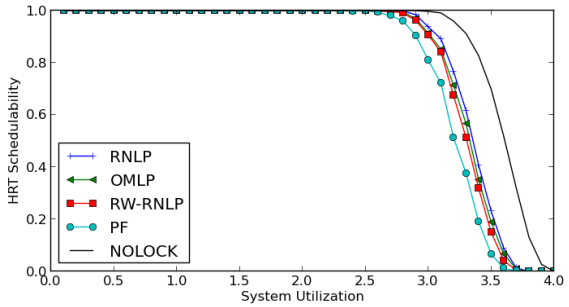

Figure 952: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

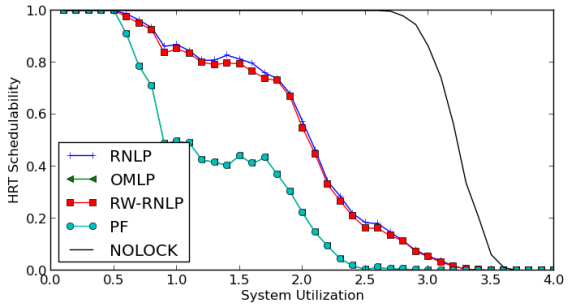

Figure 953: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

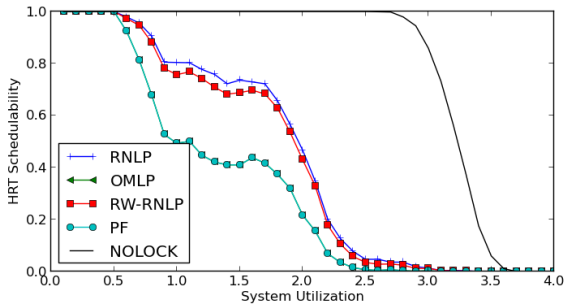

Figure 954: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

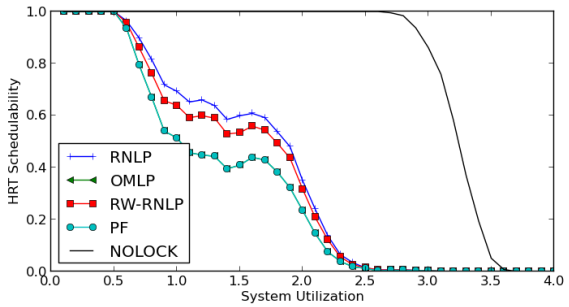

Figure 955: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

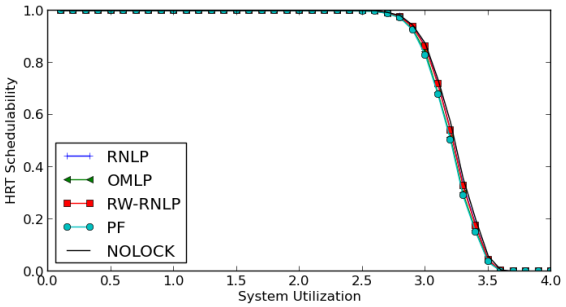

Figure 956: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

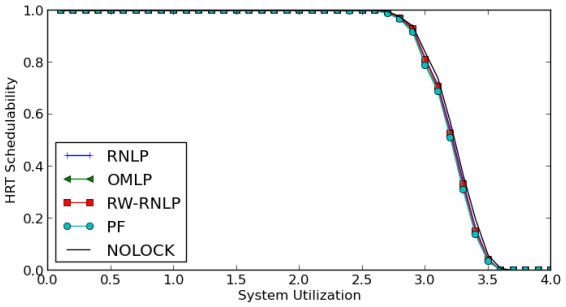

Figure 957: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

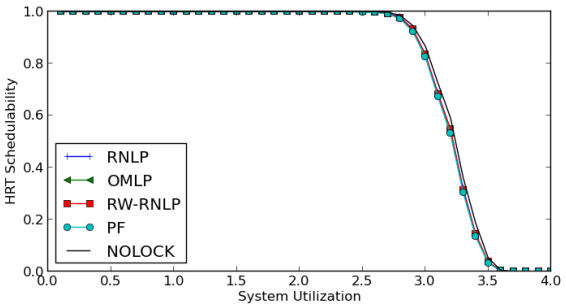

Figure 958: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

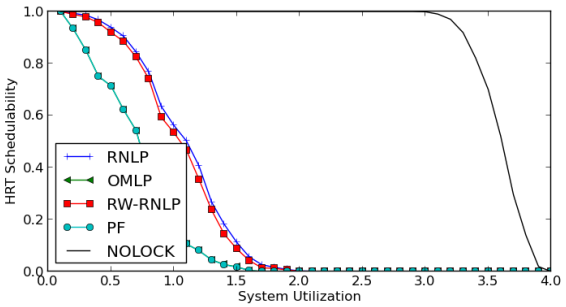

Figure 959: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 1$

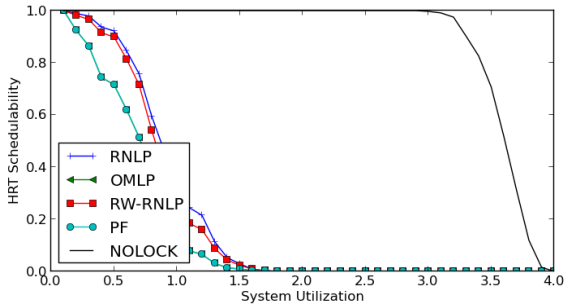

Figure 960: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 2$

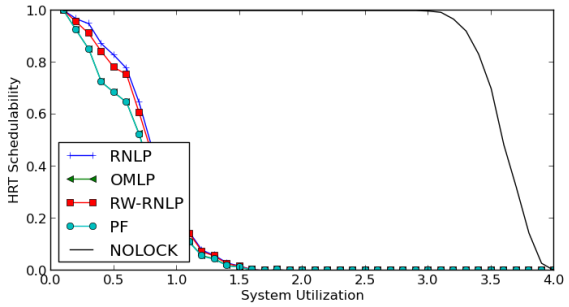

Figure 961: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.5$, $N^w = 4$

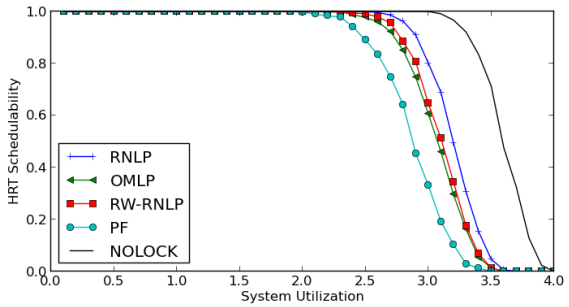

Figure 962: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 1$

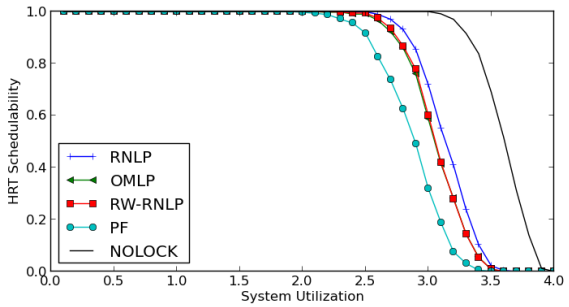

Figure 963: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 2$

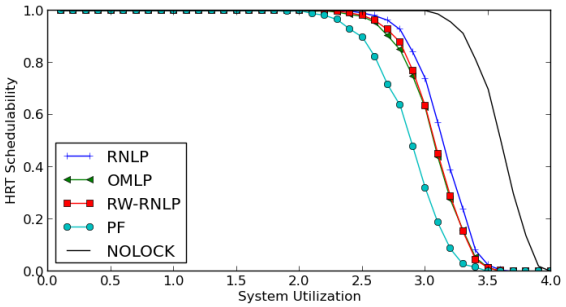

Figure 964: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.5$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.5$, $N^w = 4$

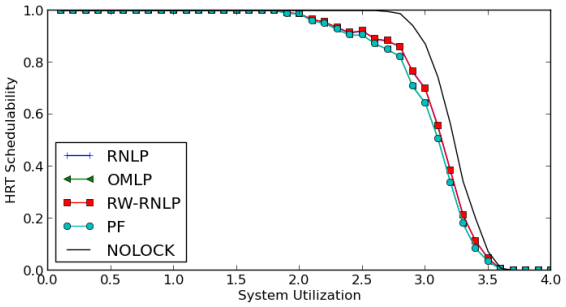

Figure 965: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

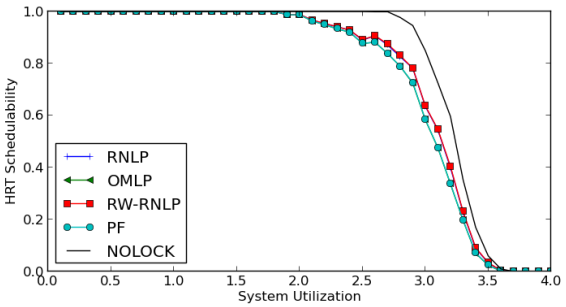

Figure 966: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

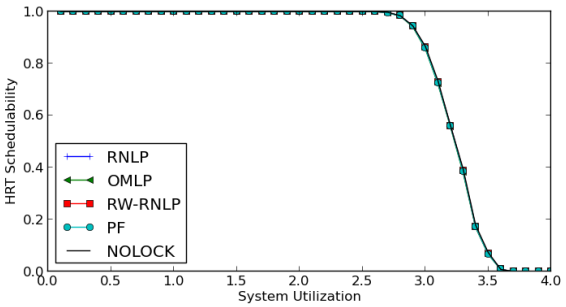

Figure 967: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

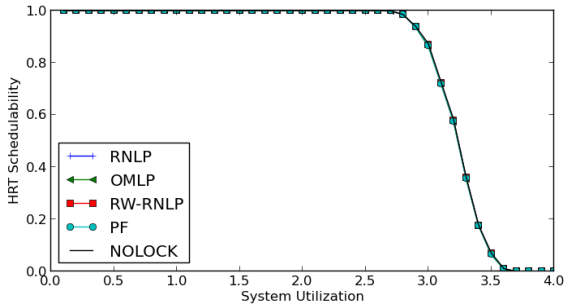

Figure 968: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

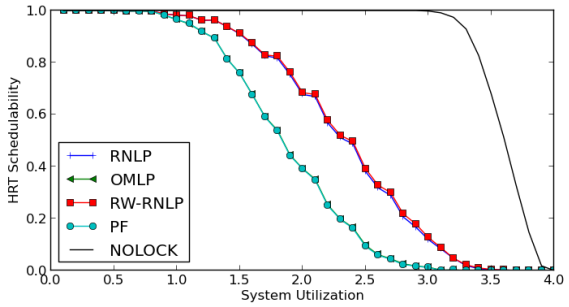

Figure 969: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

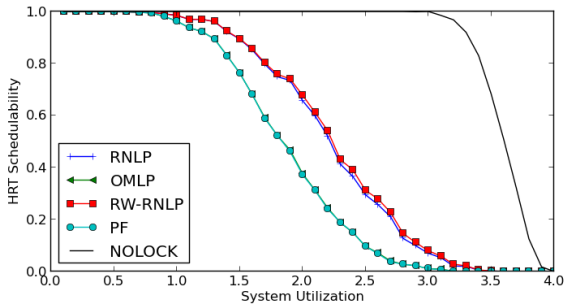

Figure 970: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

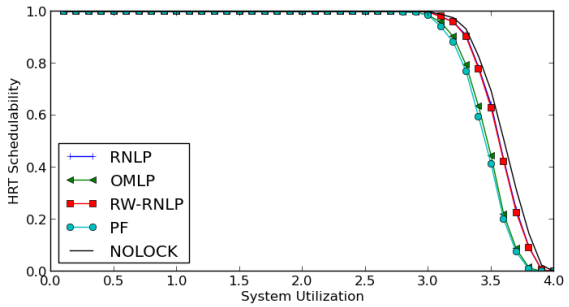

Figure 971: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

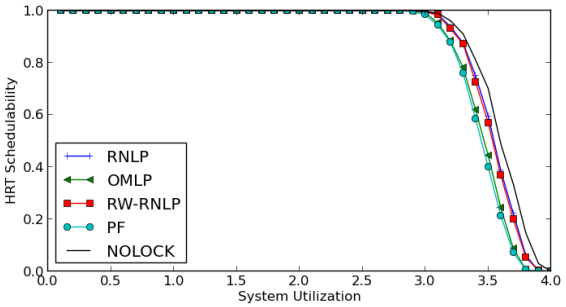

Figure 972: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

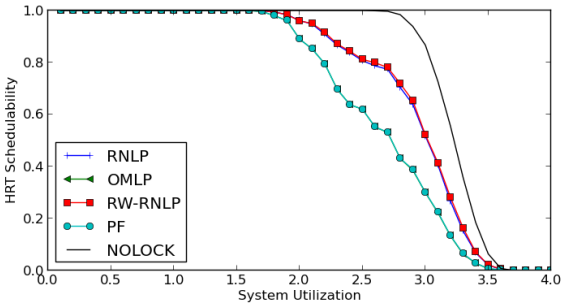

Figure 973: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

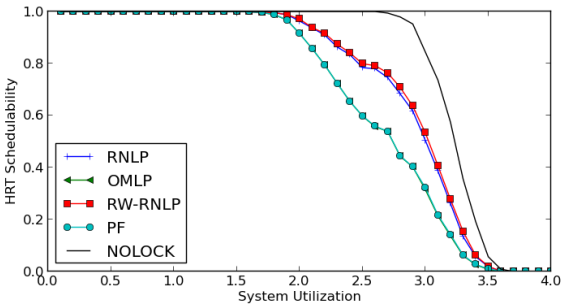

Figure 974: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

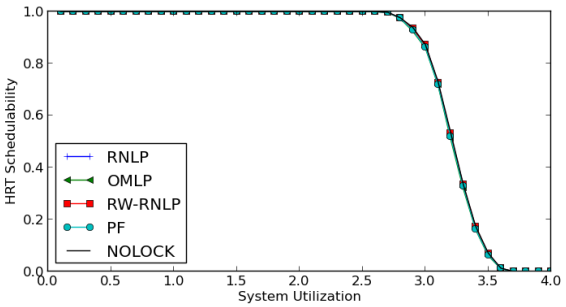

Figure 975: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

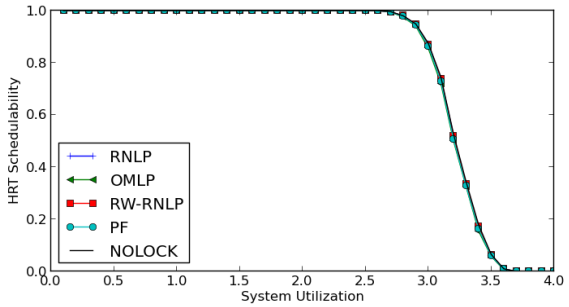

Figure 976: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

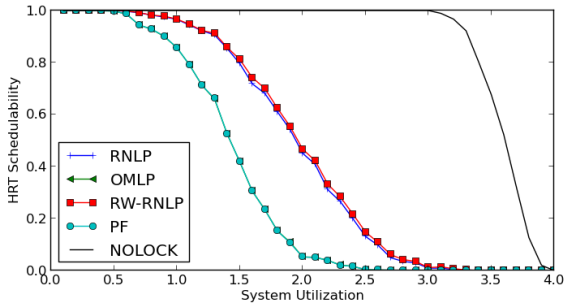

Figure 977: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

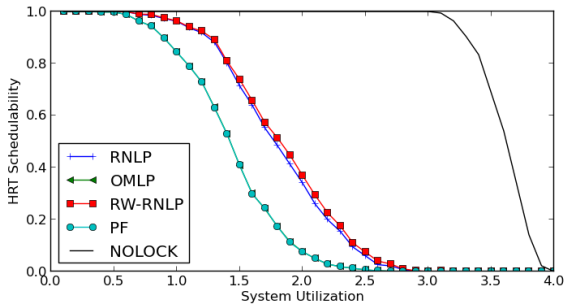

Figure 978: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

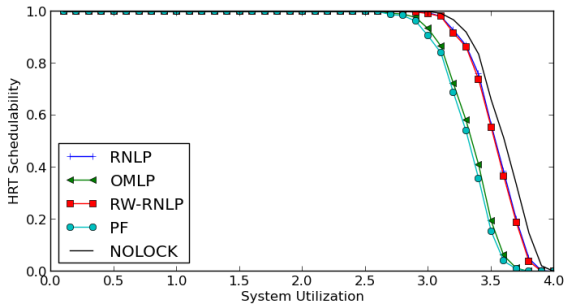

Figure 979: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

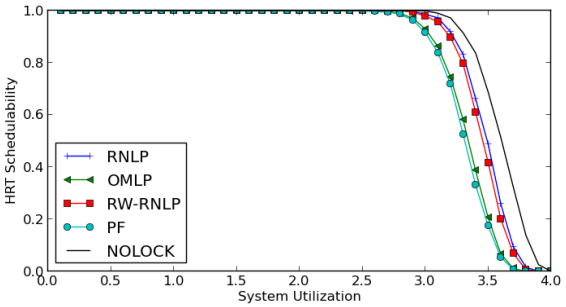

Figure 980: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

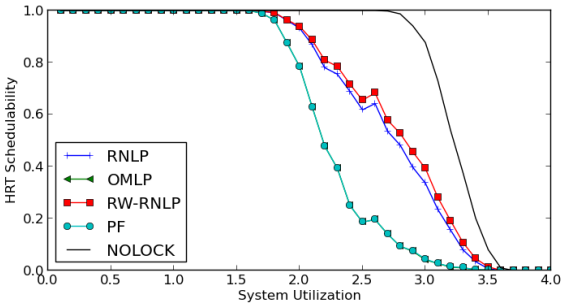

Figure 981: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

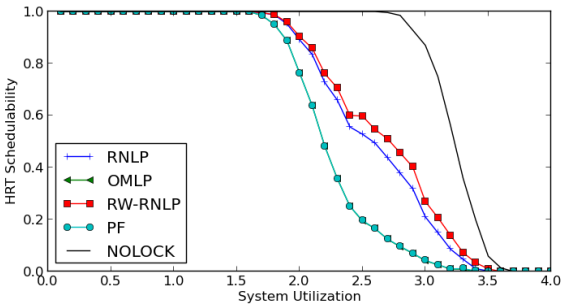

Figure 982: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

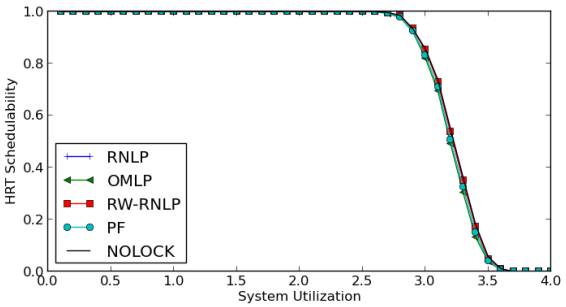

Figure 983: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

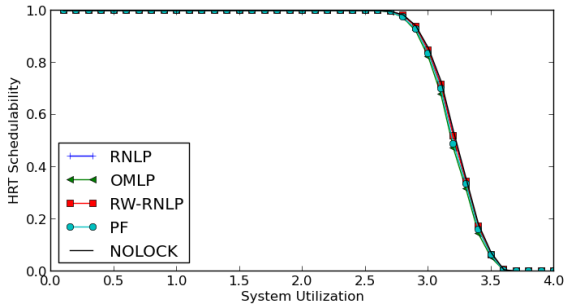

Figure 984: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

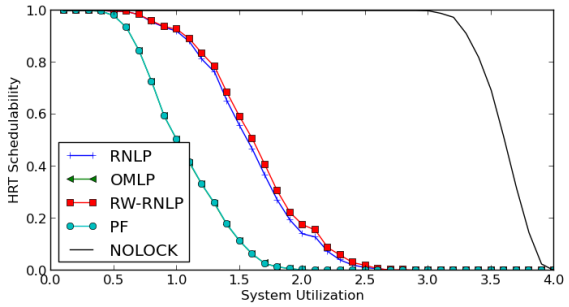

Figure 985: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

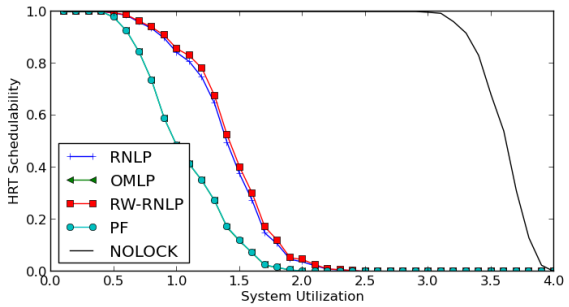

Figure 986: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

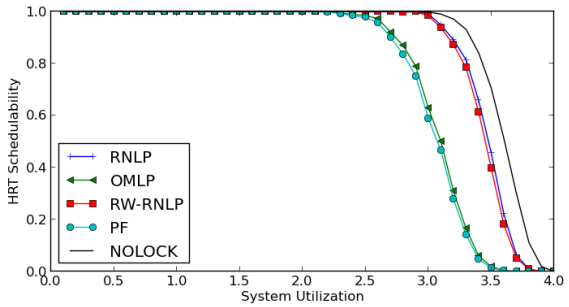

Figure 987: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

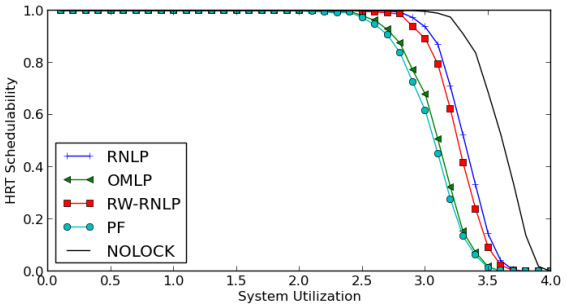

Figure 988: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

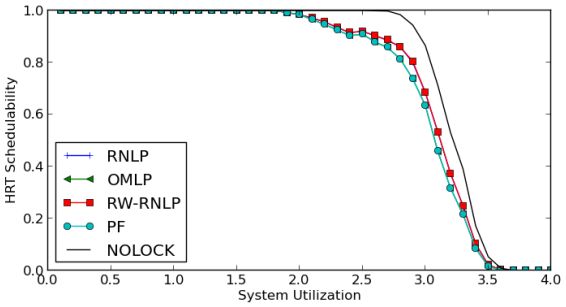

Figure 989: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

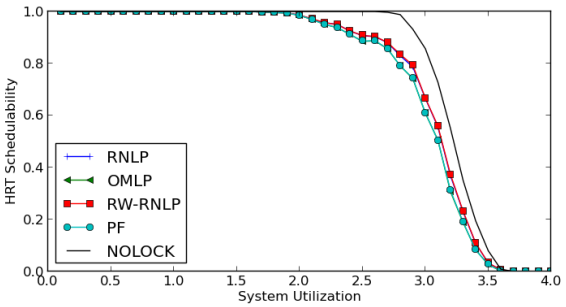

Figure 990: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

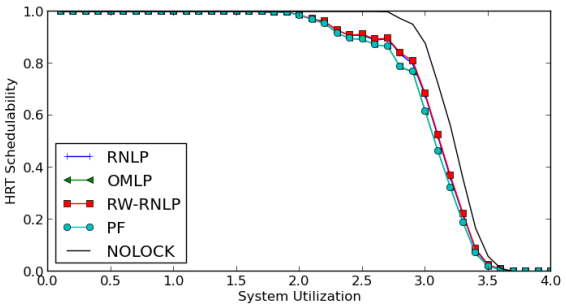

Figure 991: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

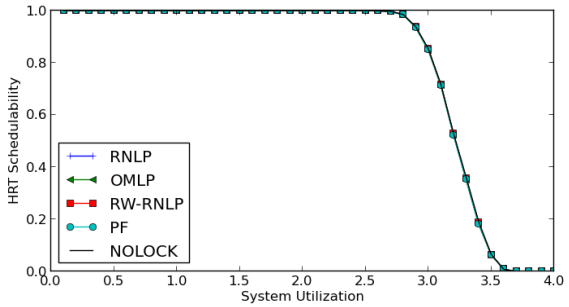

Figure 992: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

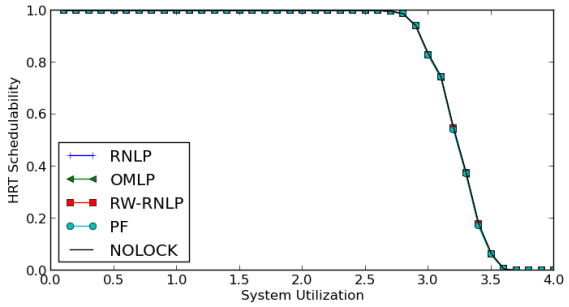

Figure 993: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

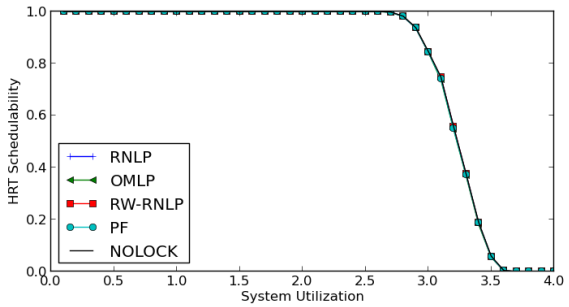

Figure 994: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

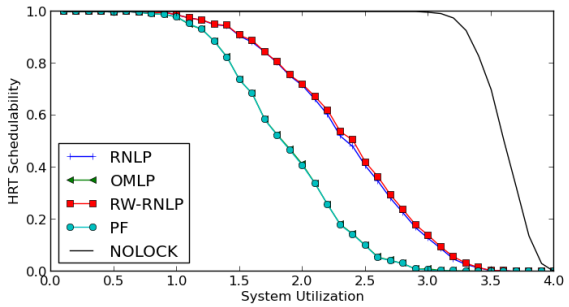

Figure 995: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

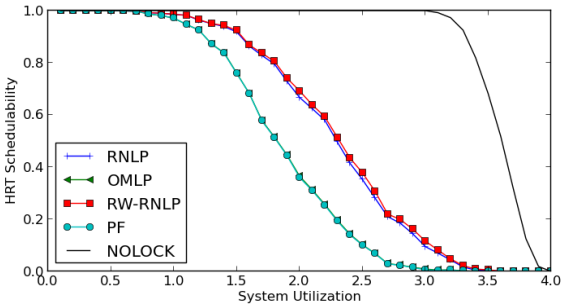

Figure 996: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

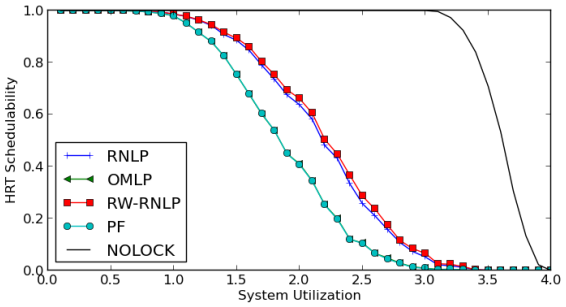

Figure 997: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

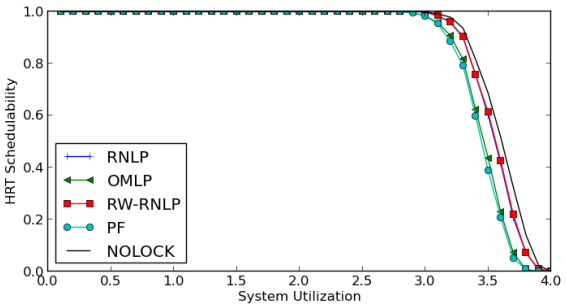

Figure 998: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

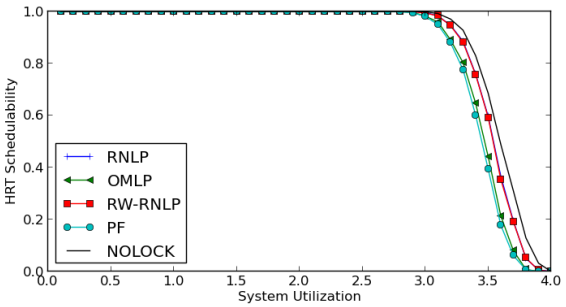

Figure 999: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

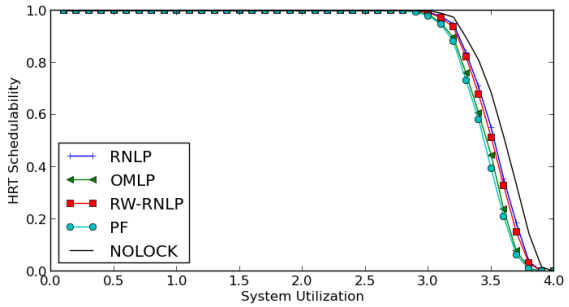

Figure 1000: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

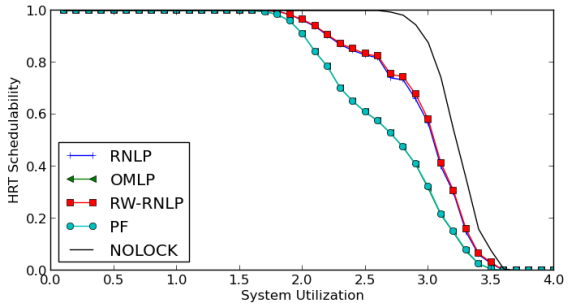

Figure 1001: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

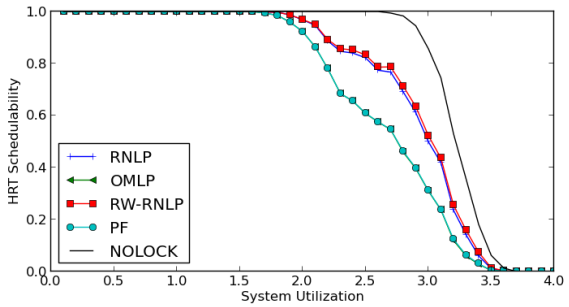

Figure 1002: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

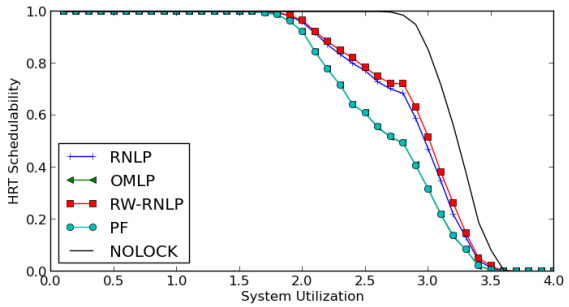

Figure 1003: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

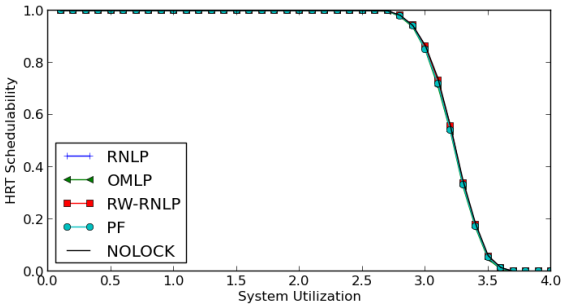

Figure 1004: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

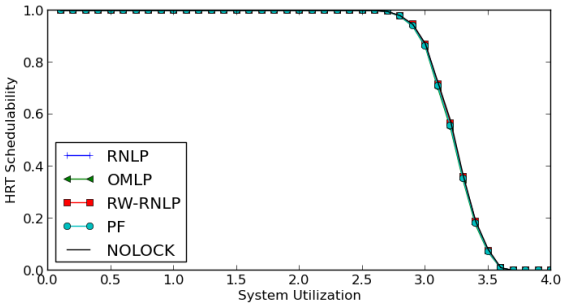

Figure 1005: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

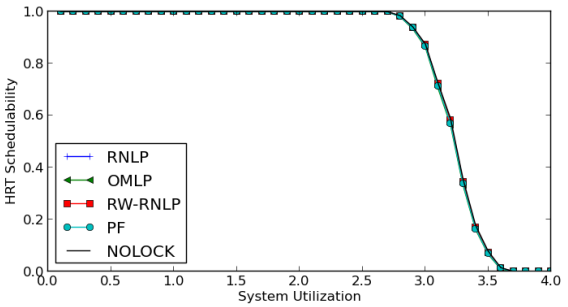

Figure 1006: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

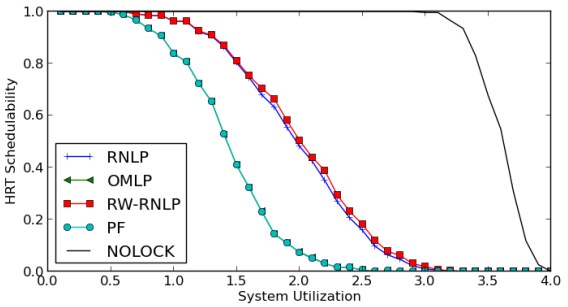

Figure 1007: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

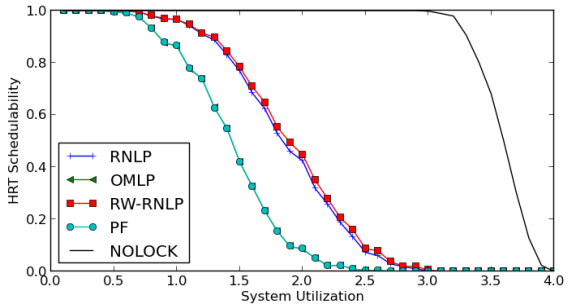

Figure 1008: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

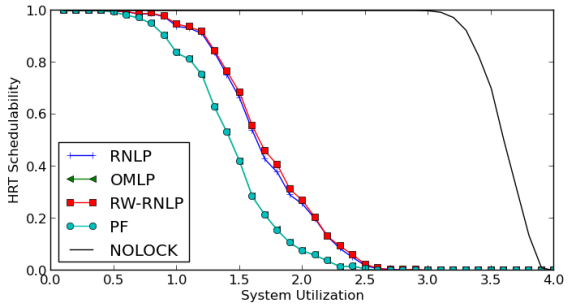

Figure 1009: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

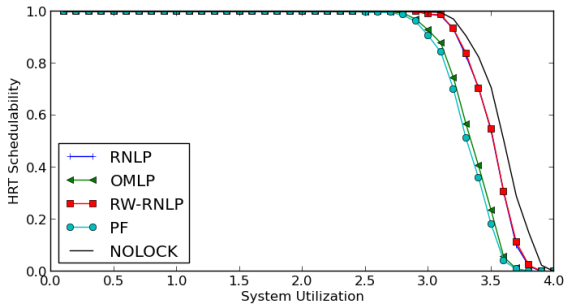

Figure 1010: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

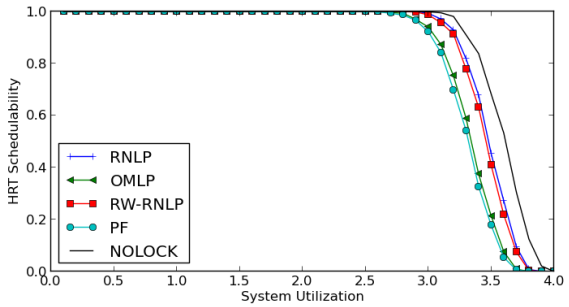

Figure 1011: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

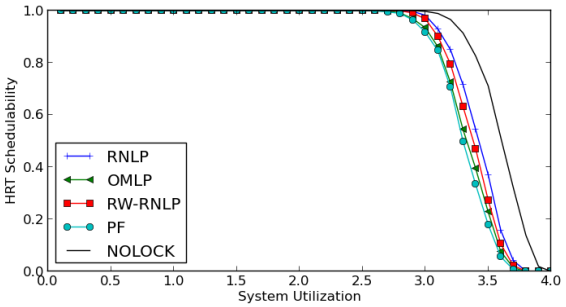

Figure 1012: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

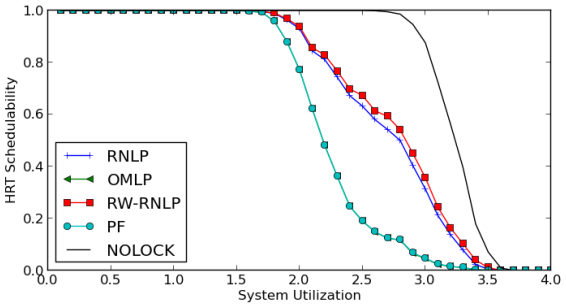

Figure 1013: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

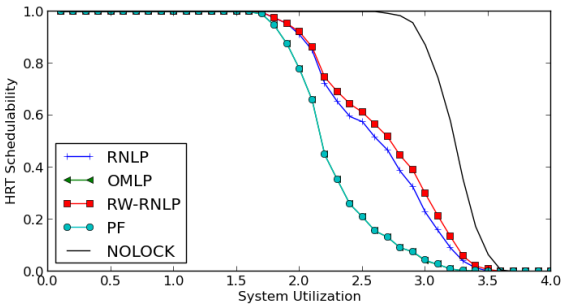

Figure 1014: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

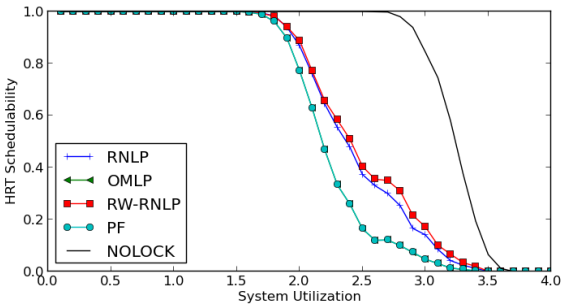

Figure 1015: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

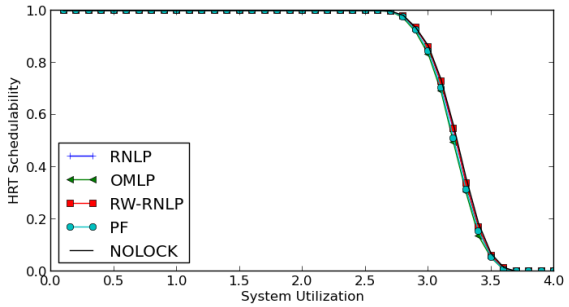

Figure 1016: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

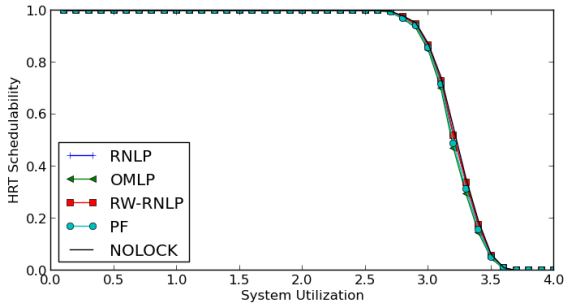

Figure 1017: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

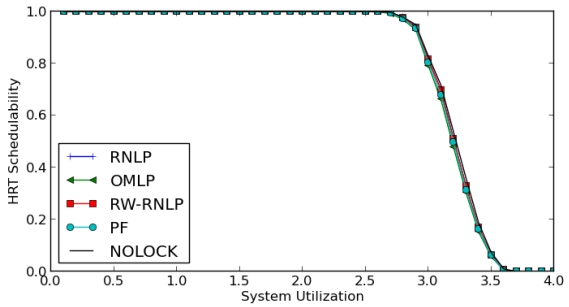

Figure 1018: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

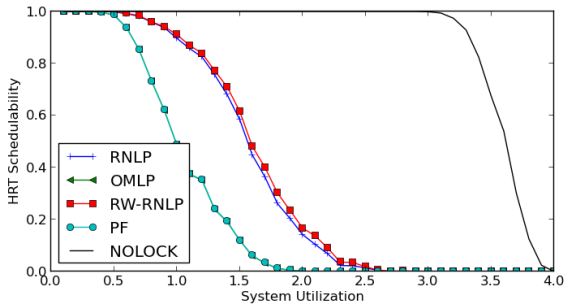

Figure 1019: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

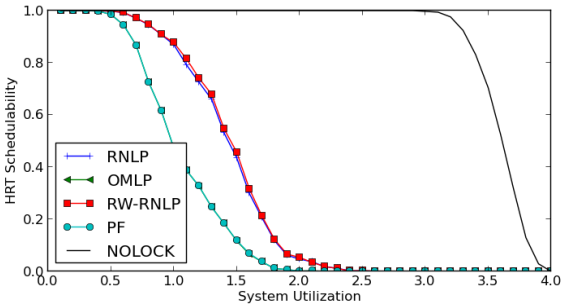

Figure 1020: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

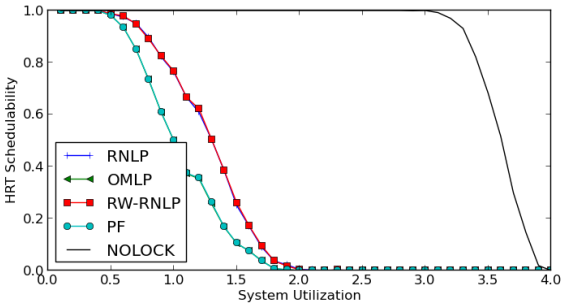

Figure 1021: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

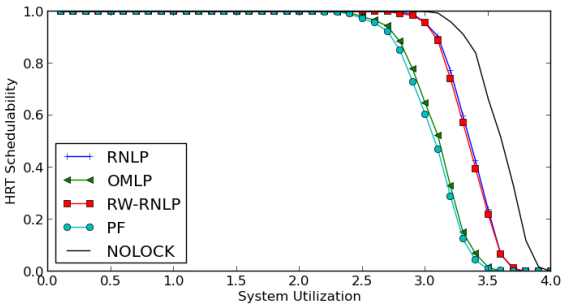

Figure 1022: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

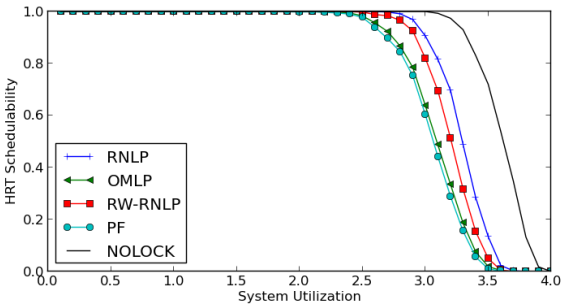

Figure 1023: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

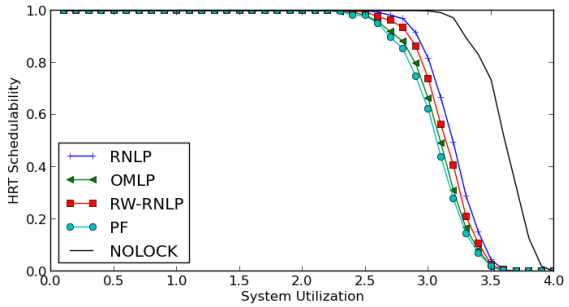

Figure 1024: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

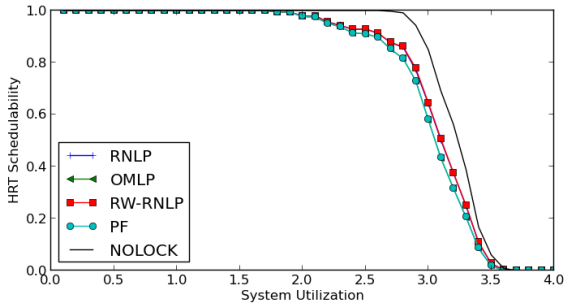

Figure 1025: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

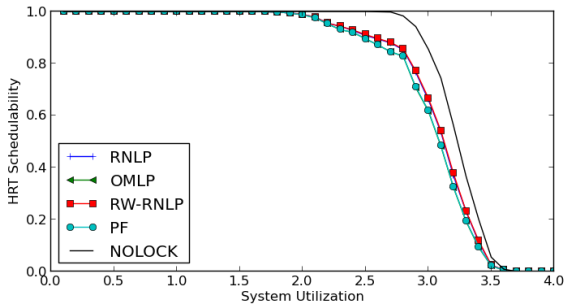

Figure 1026: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

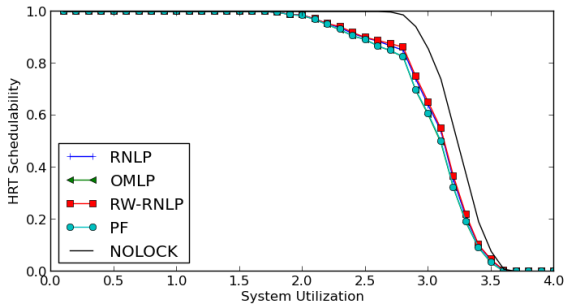

Figure 1027: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

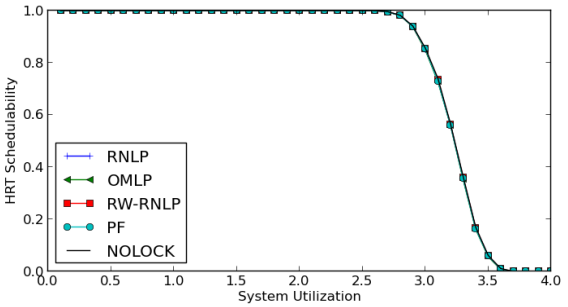

Figure 1028: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

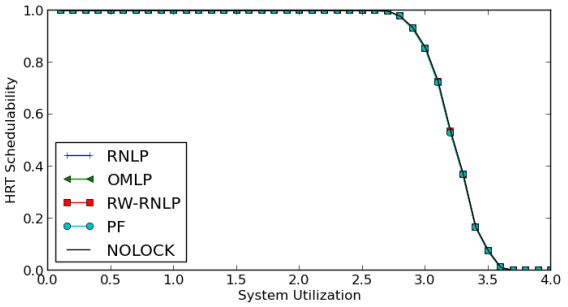

Figure 1029: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

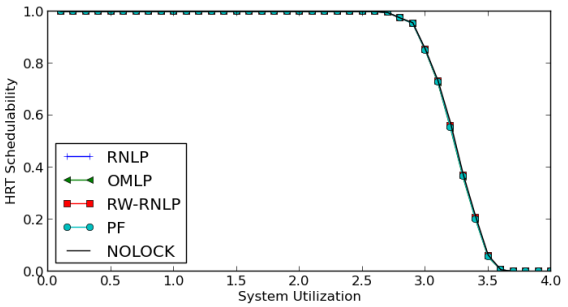

Figure 1030: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

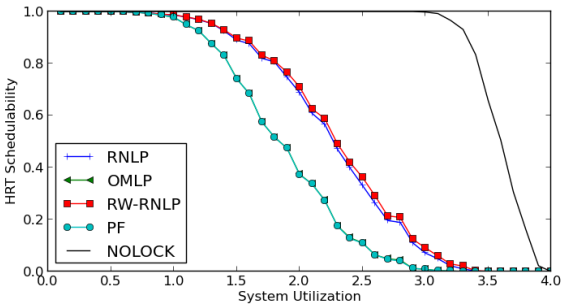

Figure 1031: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

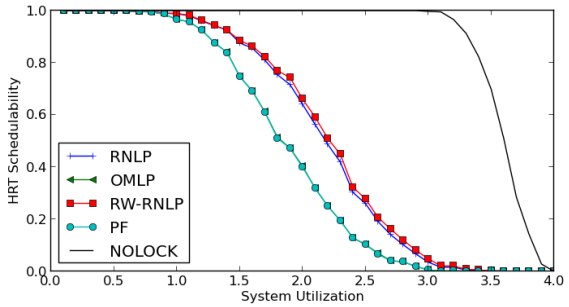

Figure 1032: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

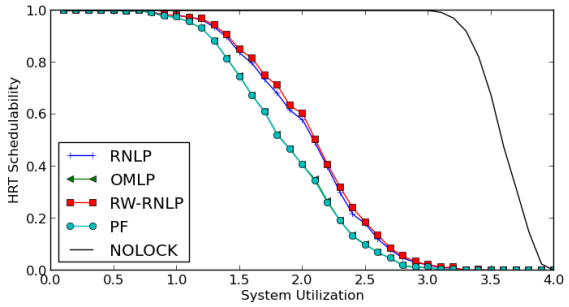

Figure 1033: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

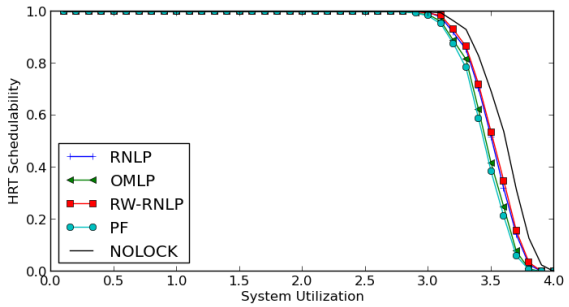

Figure 1034: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

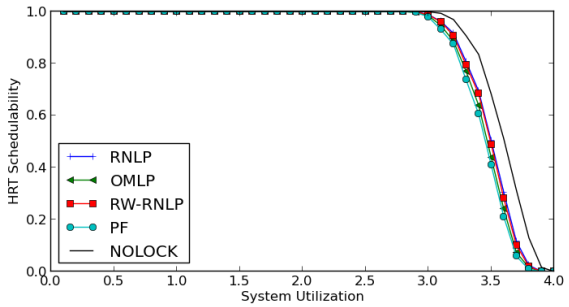

Figure 1035: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

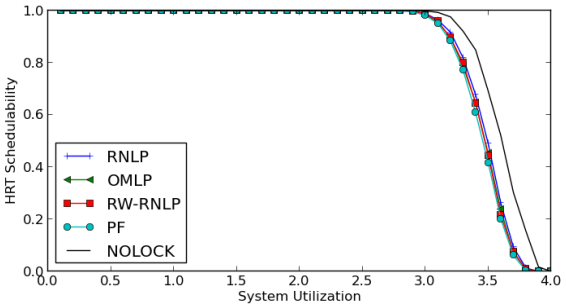

Figure 1036: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

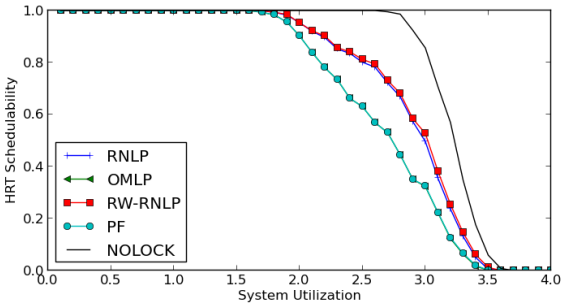

Figure 1037: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

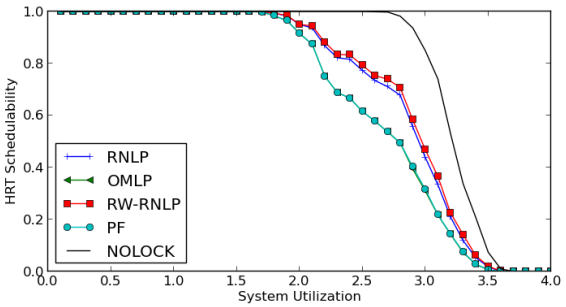

Figure 1038: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

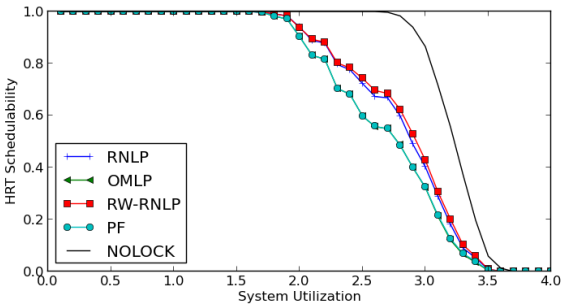

Figure 1039: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

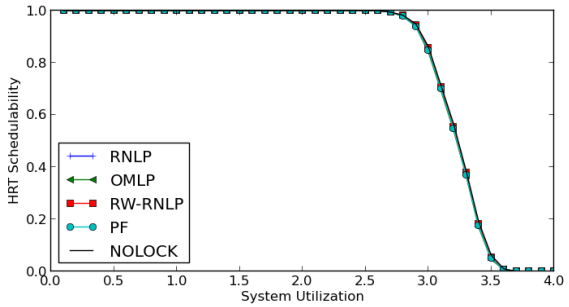

Figure 1040: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

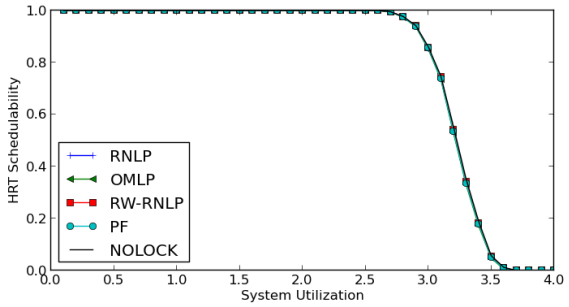

Figure 1041: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

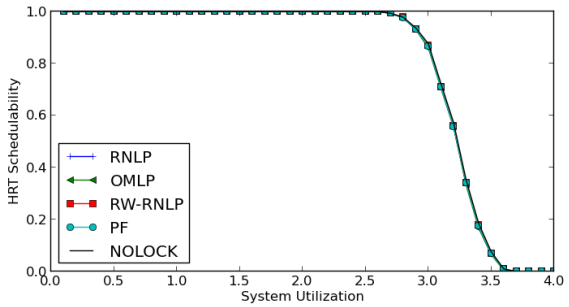

Figure 1042: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

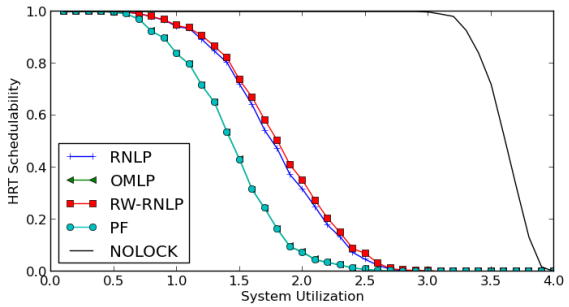

Figure 1043: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

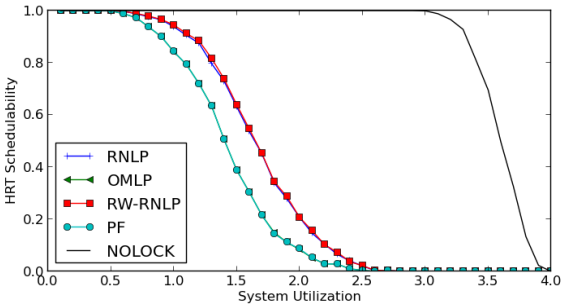

Figure 1044: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

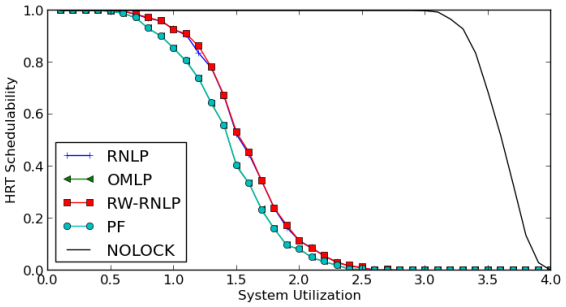

Figure 1045: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

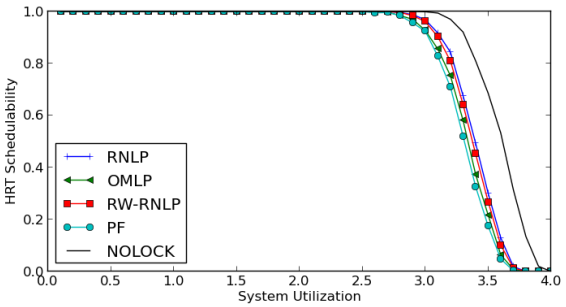

Figure 1046: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

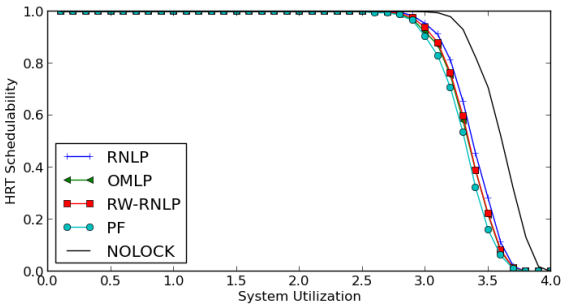

Figure 1047: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

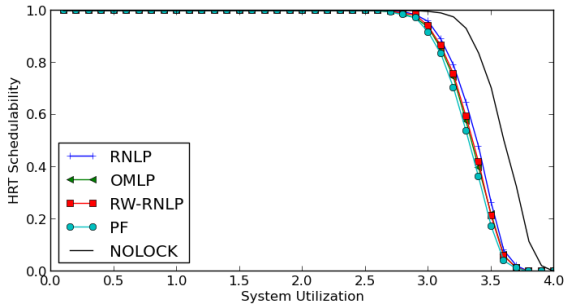

Figure 1048: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

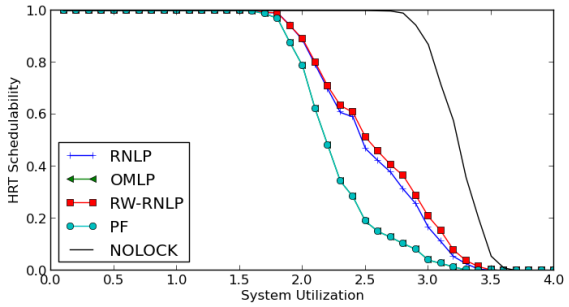

Figure 1049: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

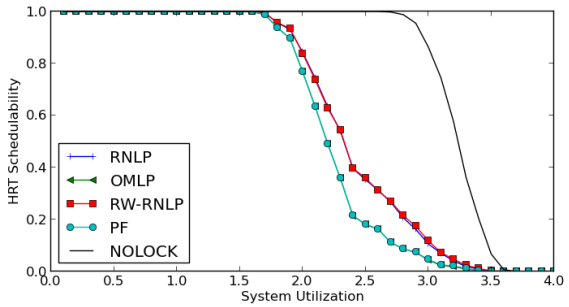

Figure 1050: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

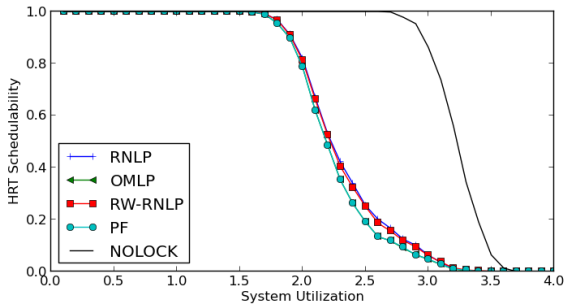

Figure 1051: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

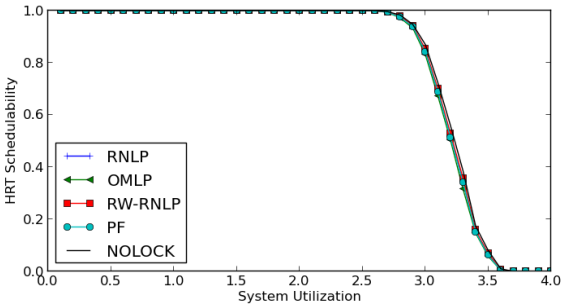

Figure 1052: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

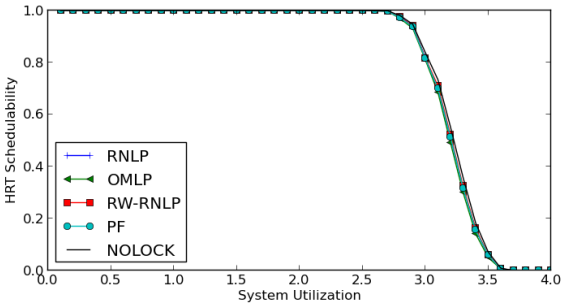

Figure 1053: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

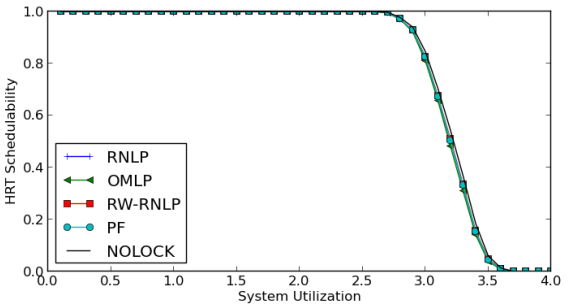

Figure 1054: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

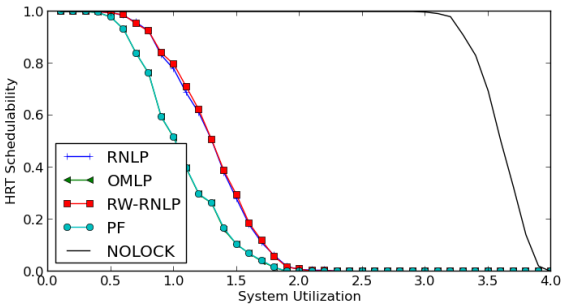

Figure 1055: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 1$

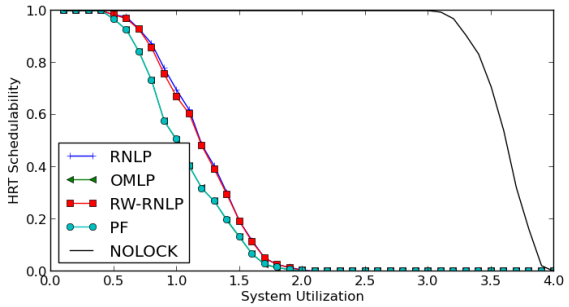

Figure 1056: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 2$

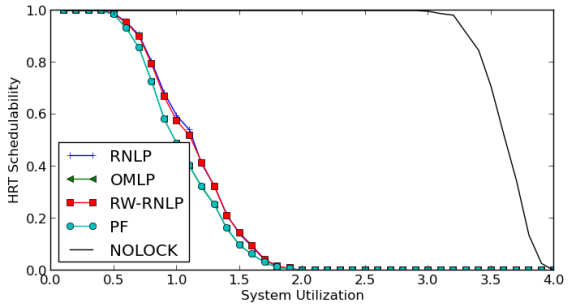

Figure 1057: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.3$, $N^w = 4$

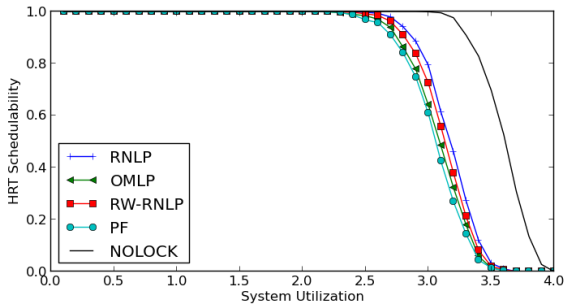

Figure 1058: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 1$

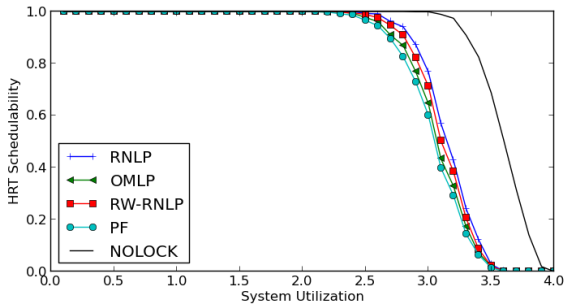

Figure 1059: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 2$

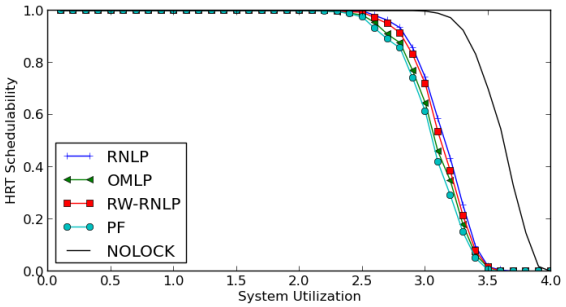

Figure 1060: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.7$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.3$, $N^w = 4$

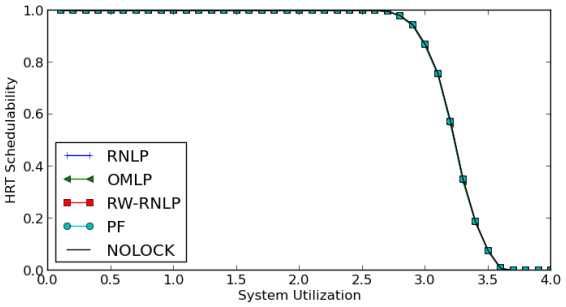

Figure 1061: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

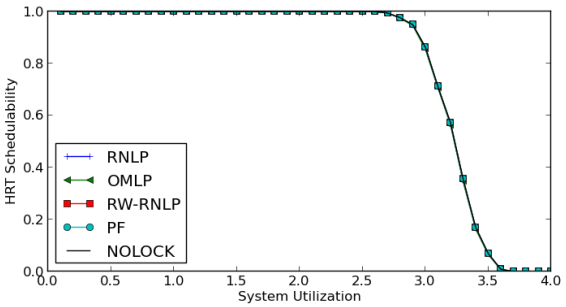

Figure 1062: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

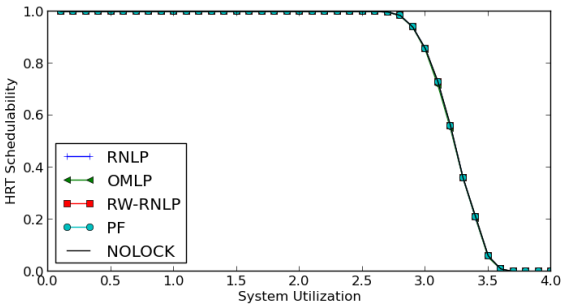

Figure 1063: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

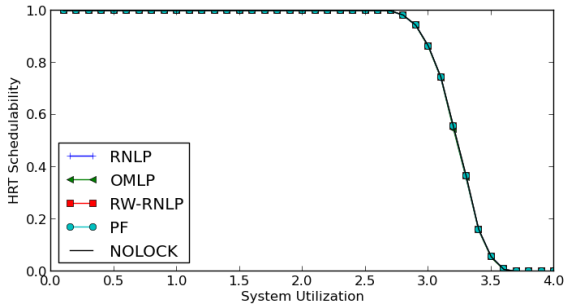

Figure 1064: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

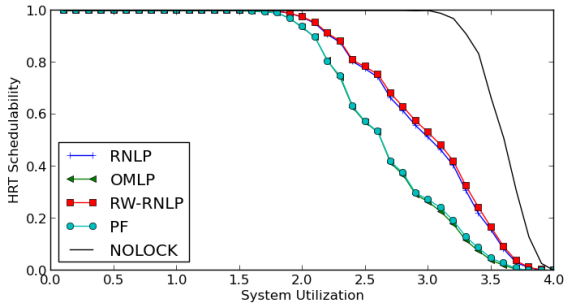

Figure 1065: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

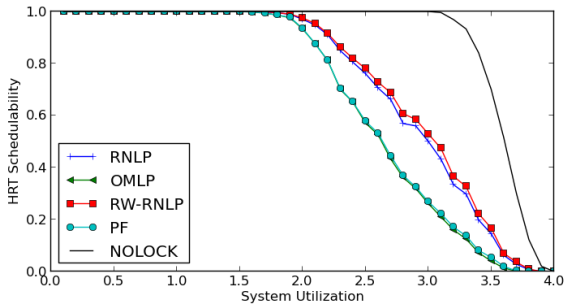

Figure 1066: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

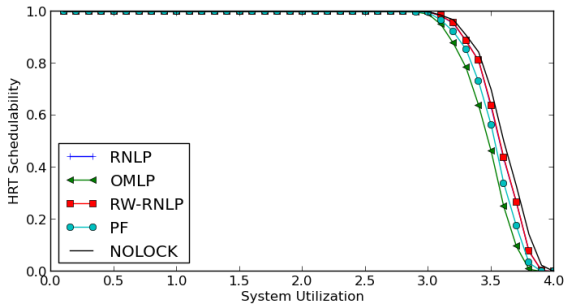

Figure 1067: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

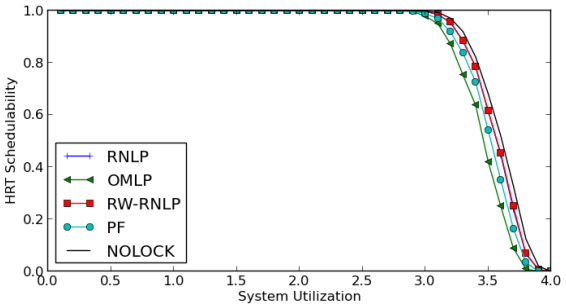

Figure 1068: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

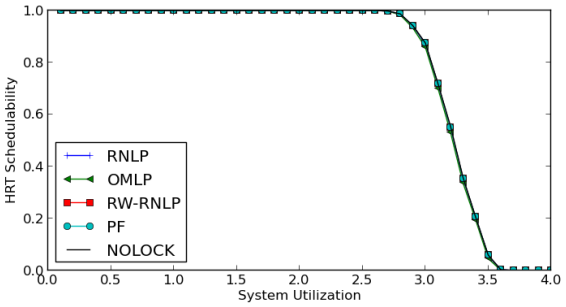

Figure 1069: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

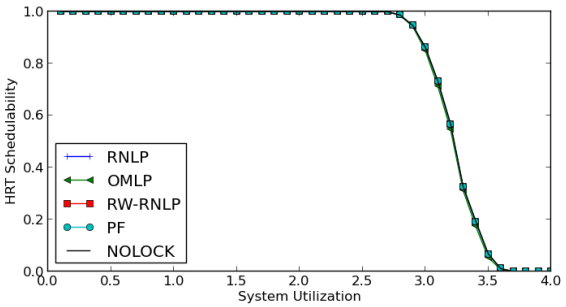

Figure 1070: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

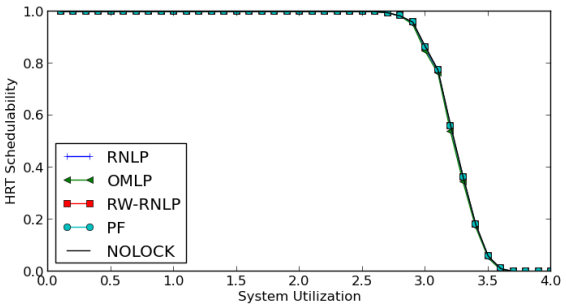

Figure 1071: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

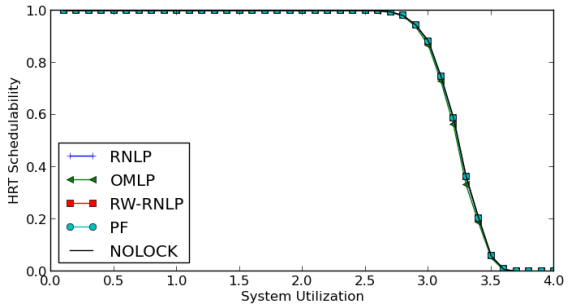

Figure 1072: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

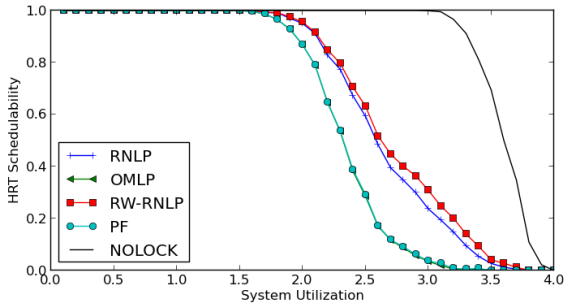

Figure 1073: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

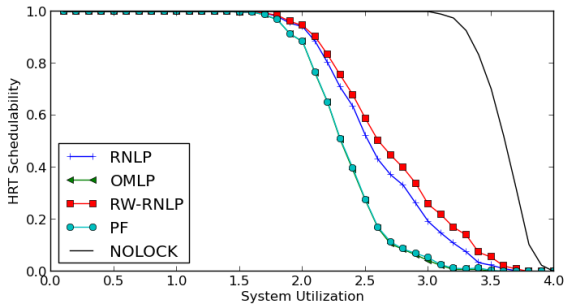

Figure 1074: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

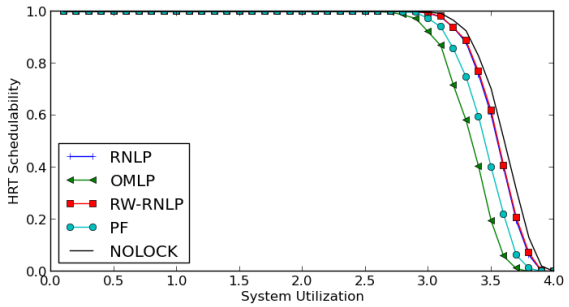

Figure 1075: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

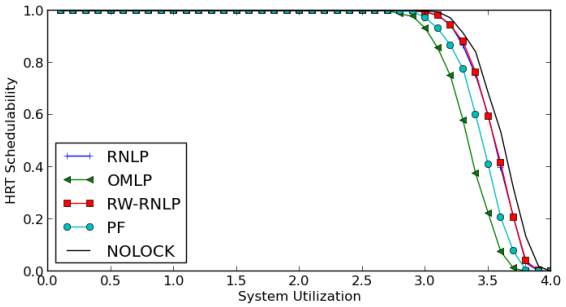

Figure 1076: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

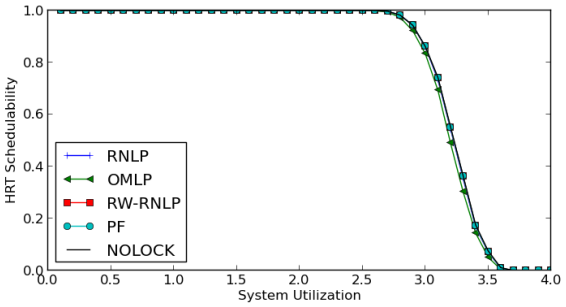

Figure 1077: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

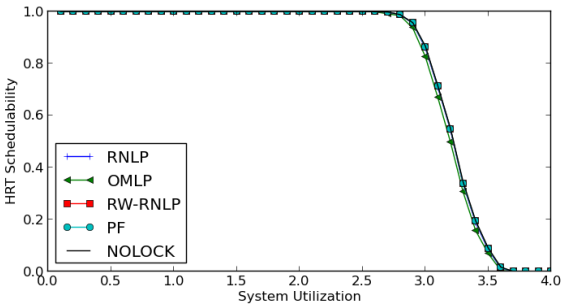

Figure 1078: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

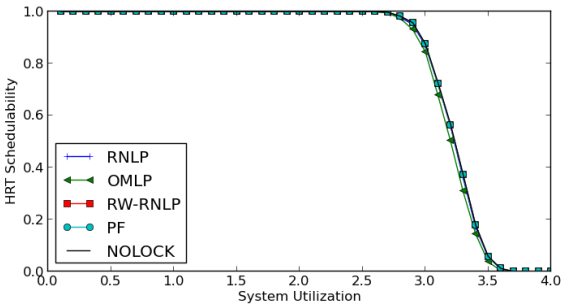

Figure 1079: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

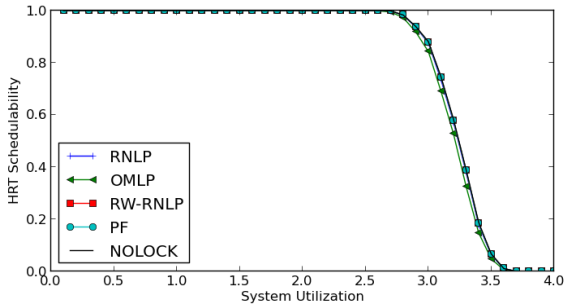

Figure 1080: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

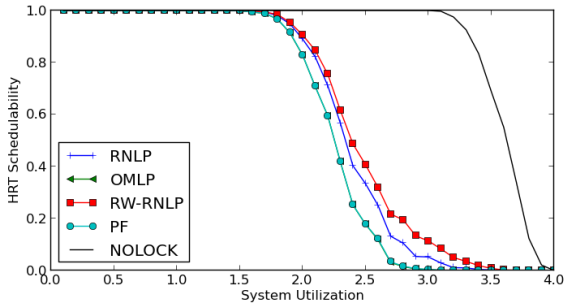

Figure 1081: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

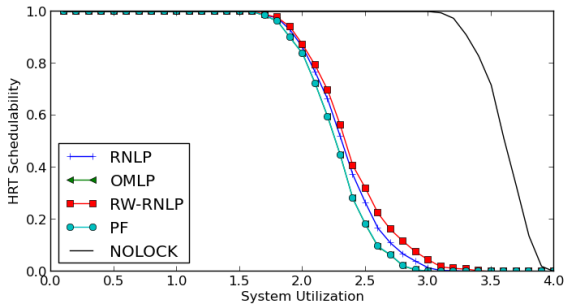

Figure 1082: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

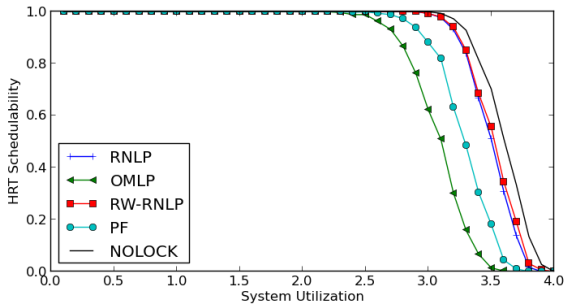

Figure 1083: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

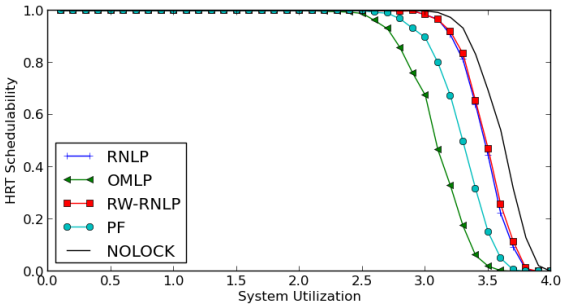

Figure 1084: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 1$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

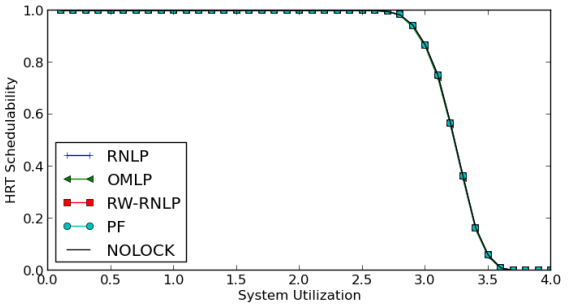

Figure 1085: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

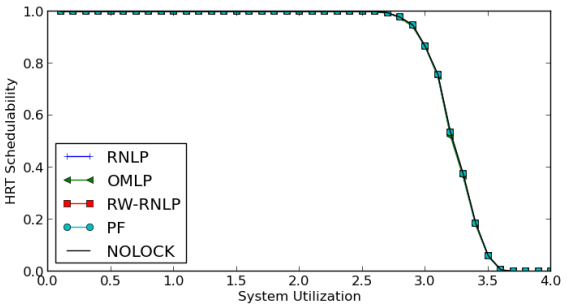

Figure 1086: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

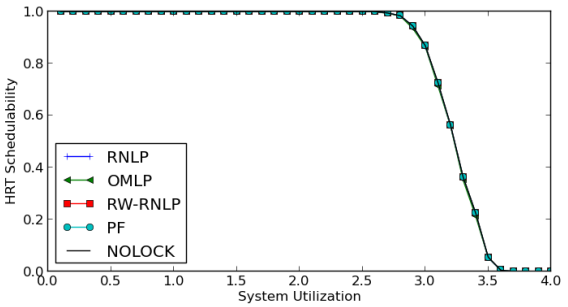

Figure 1087: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

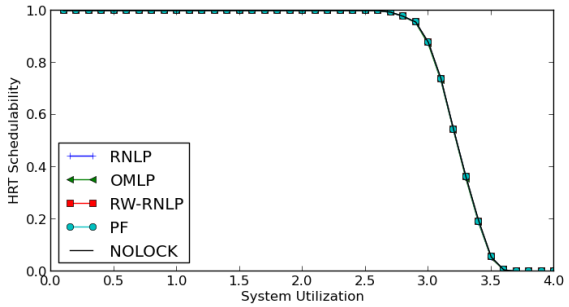

Figure 1088: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

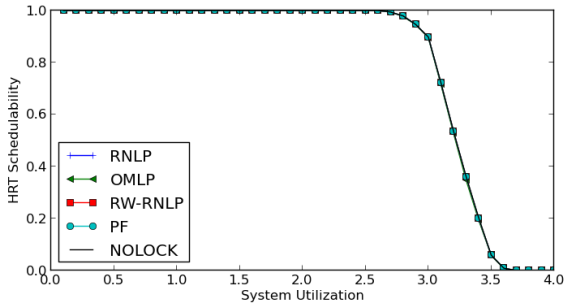

Figure 1089: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

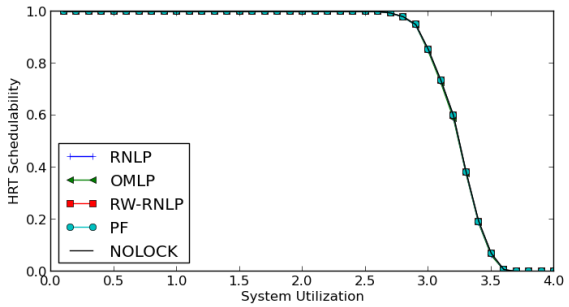

Figure 1090: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

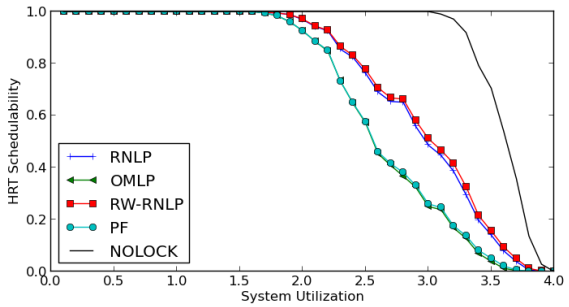

Figure 1091: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

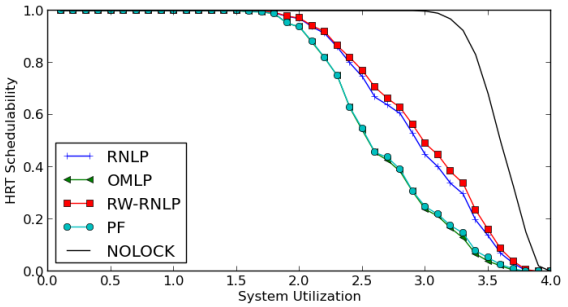

Figure 1092: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

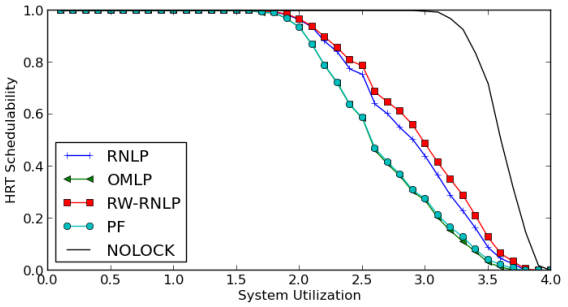

Figure 1093: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

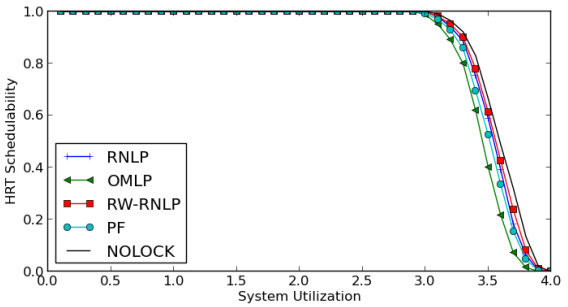

Figure 1094: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

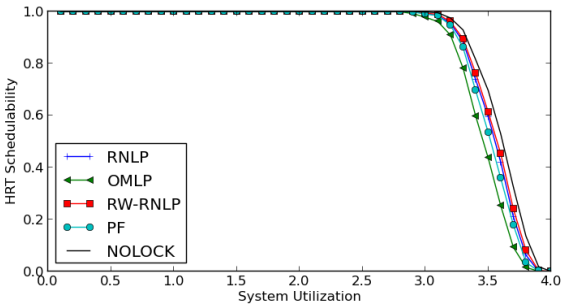

Figure 1095: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

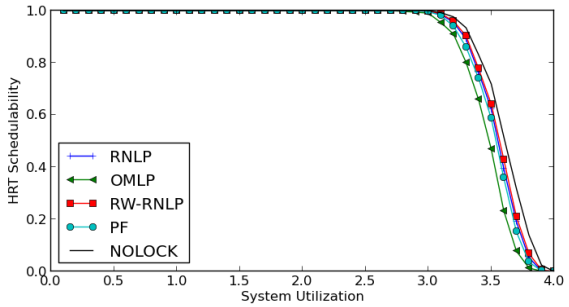

Figure 1096: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

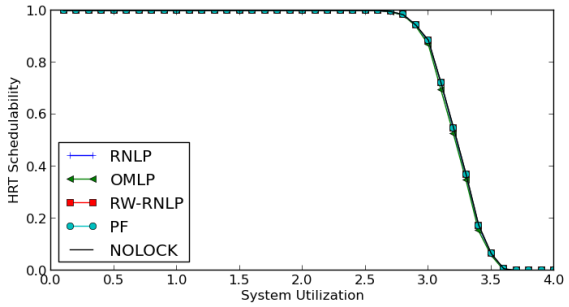

Figure 1097: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

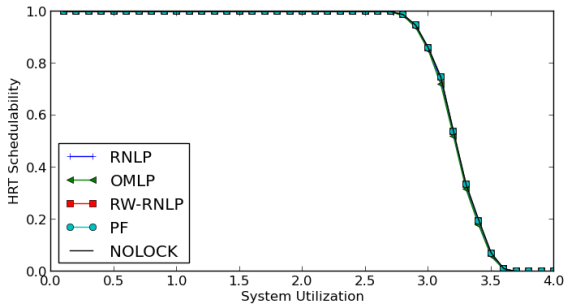

Figure 1098: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

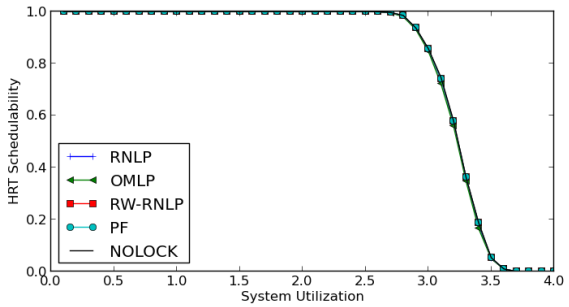

Figure 1099: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

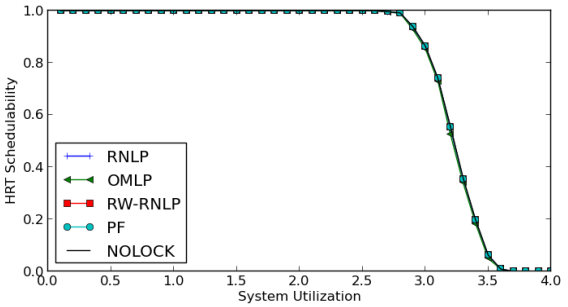

Figure 1100: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

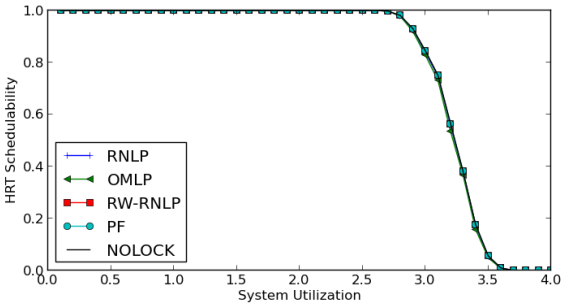

Figure 1101: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

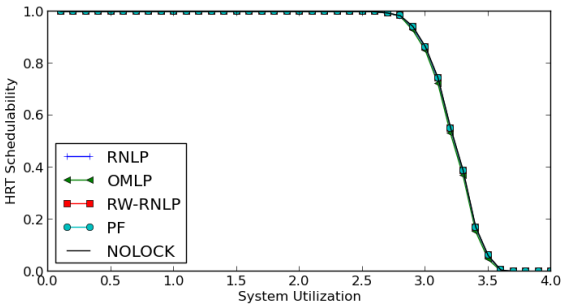

Figure 1102: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

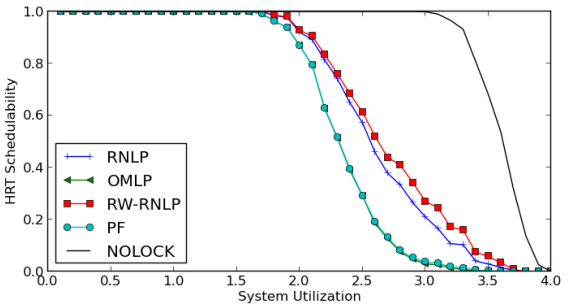

Figure 1103: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

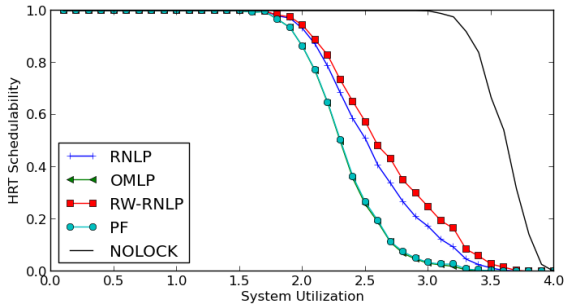

Figure 1104: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

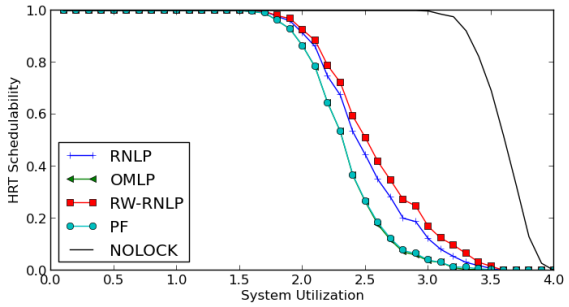

Figure 1105: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

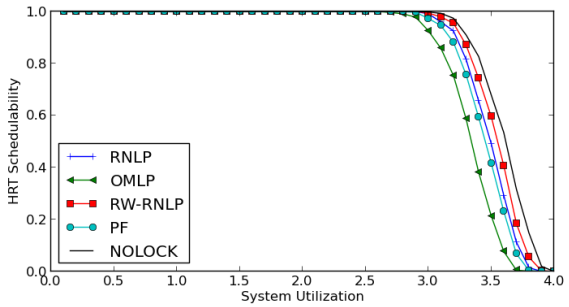

Figure 1106: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

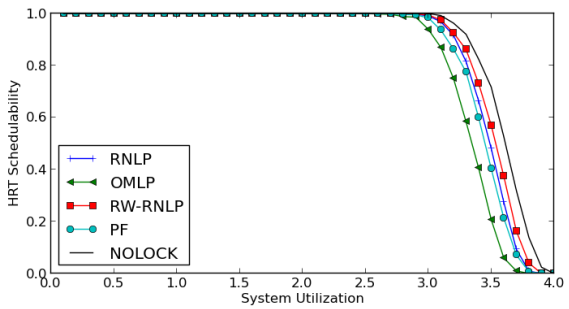

Figure 1107: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

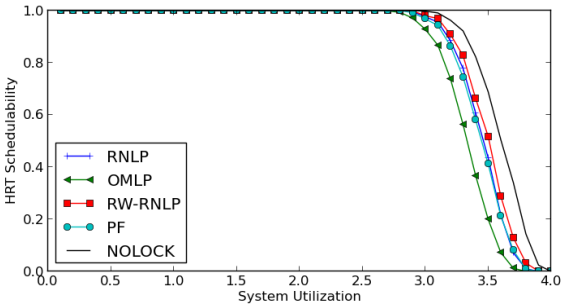

Figure 1108: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

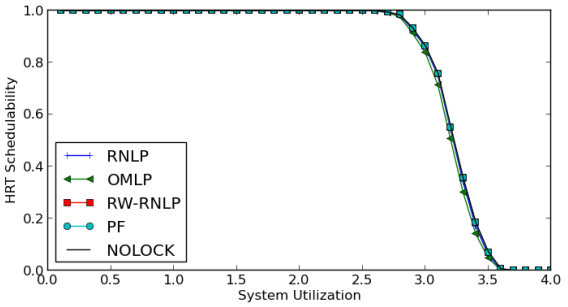

Figure 1109: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

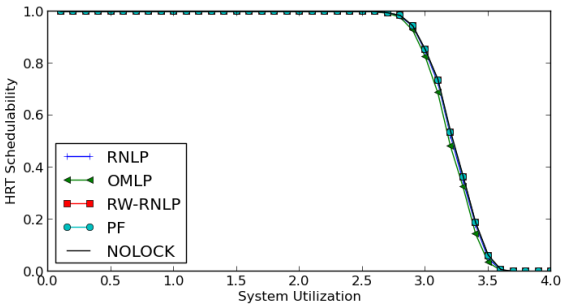

Figure 1110: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

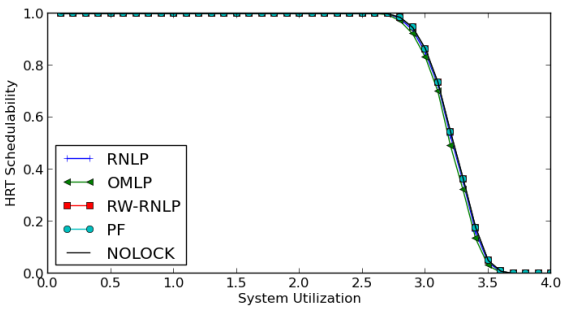

Figure 1111: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

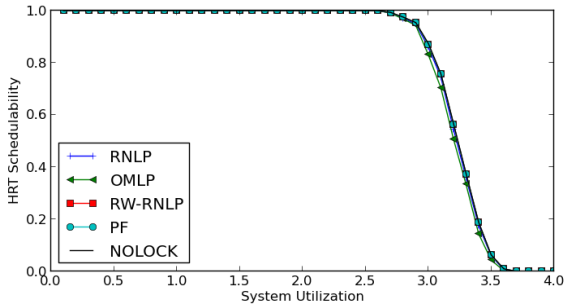

Figure 1112: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

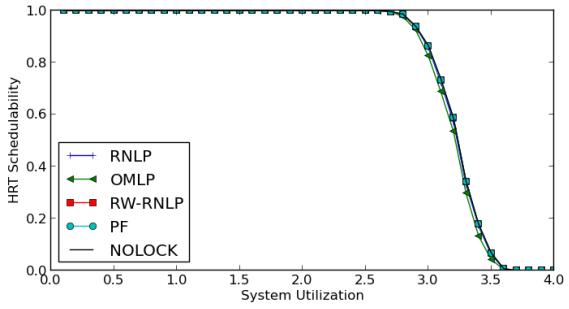

Figure 1113: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

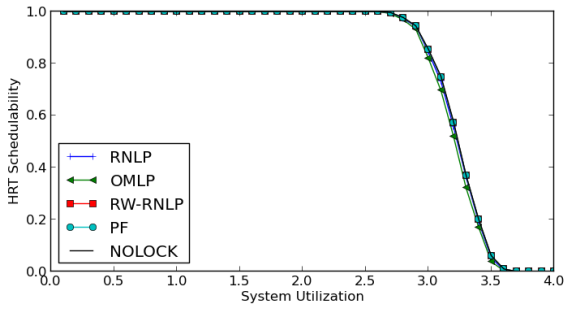

Figure 1114: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

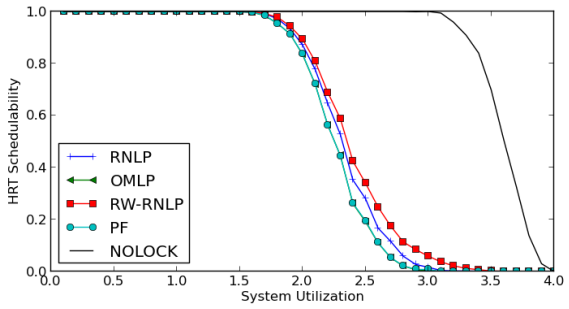

Figure 1115: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

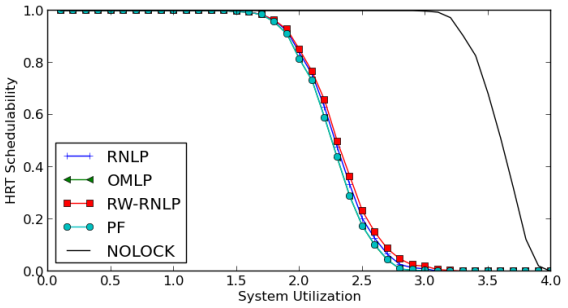

Figure 1116: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

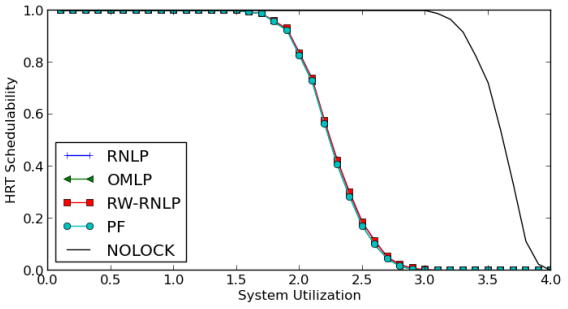

Figure 1117: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

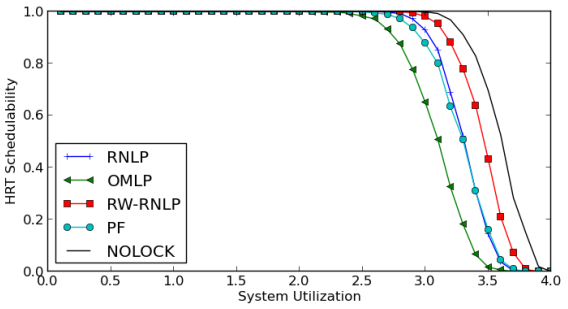

Figure 1118: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

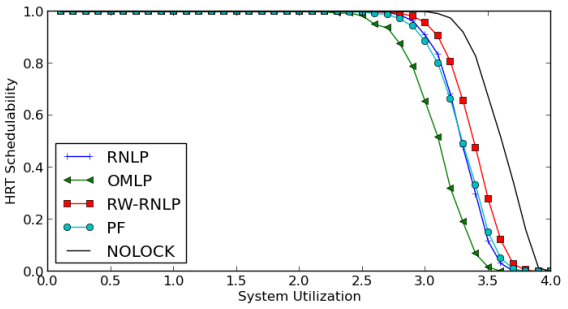

Figure 1119: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

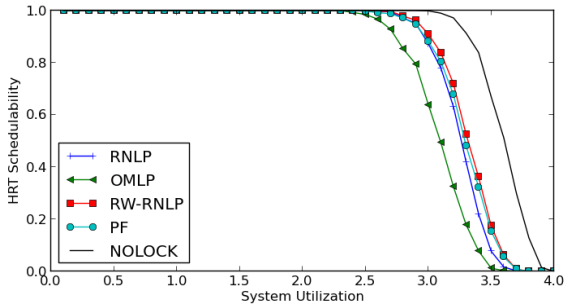

Figure 1120: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 2$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

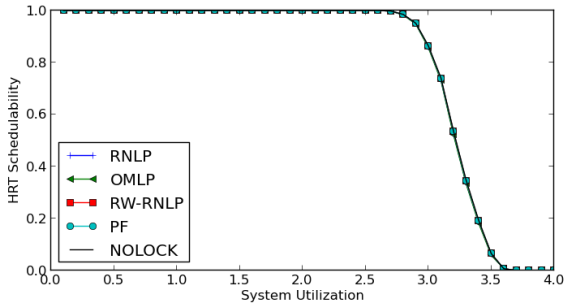

Figure 1121: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

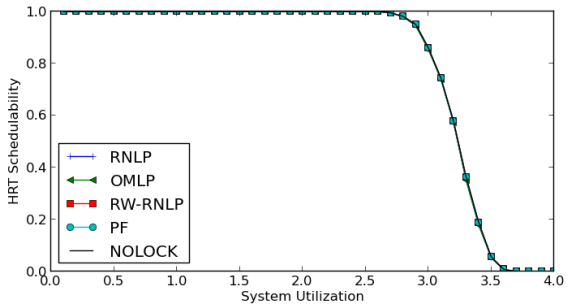

Figure 1122: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

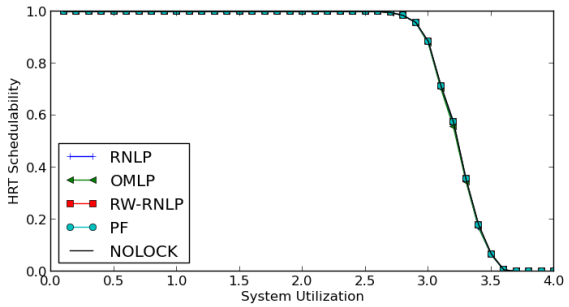

Figure 1123: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

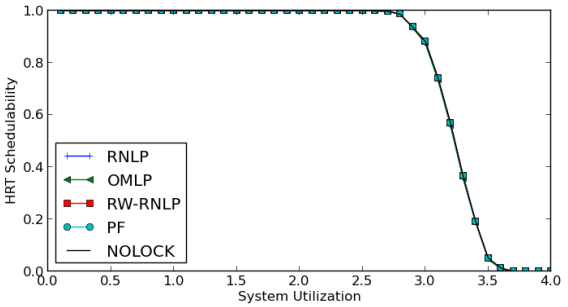

Figure 1124: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

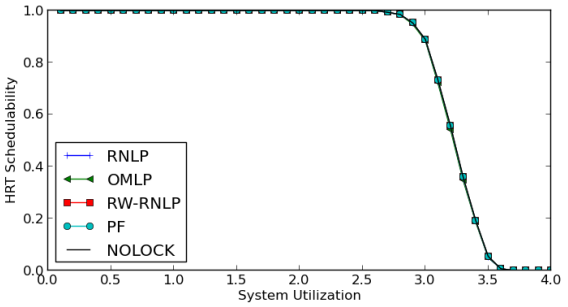

Figure 1125: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

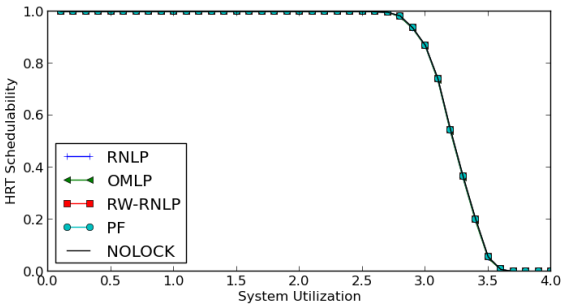

Figure 1126: Period: uni-short, Task utilization: uni-heavy, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

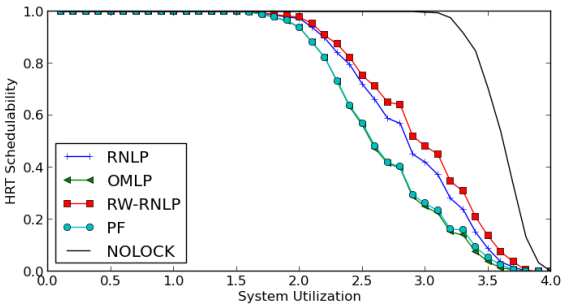

Figure 1127: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

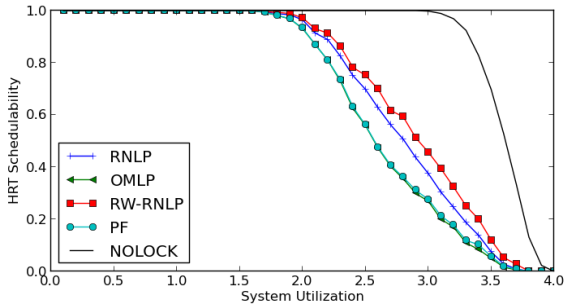

Figure 1128: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

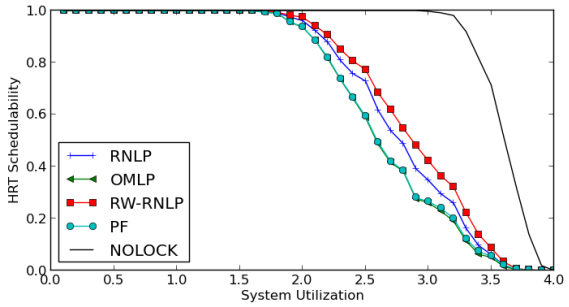

Figure 1129: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

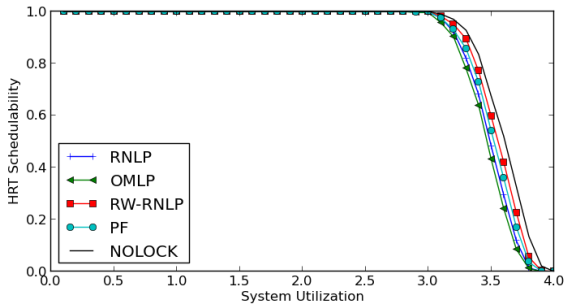

Figure 1130: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

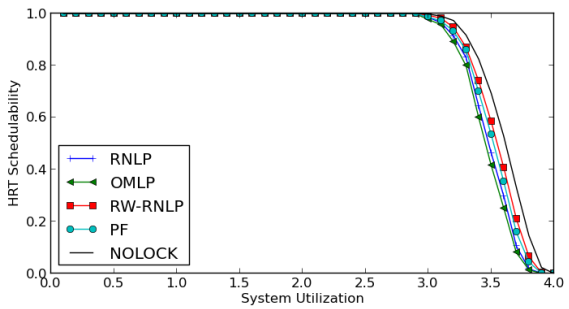

Figure 1131: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

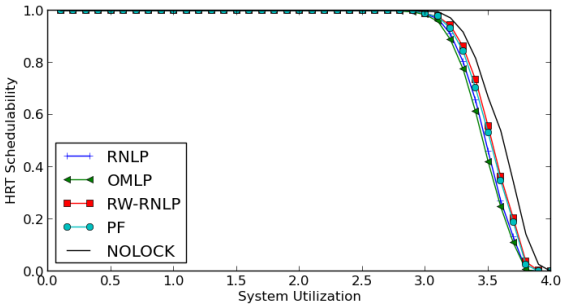

Figure 1132: Period: uni-short, Task utilization: uni-medium, Requests per job: 1, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

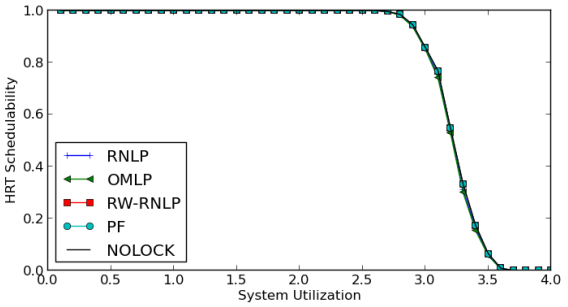

Figure 1133: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

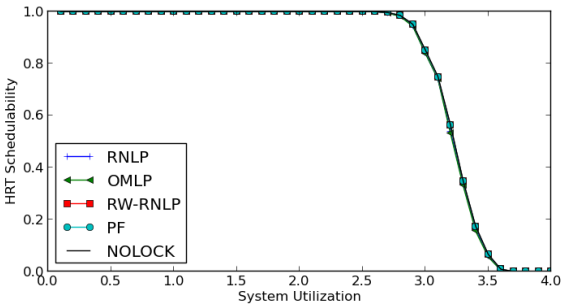

Figure 1134: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

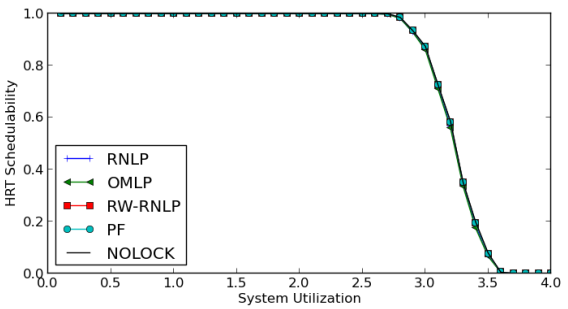

Figure 1135: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

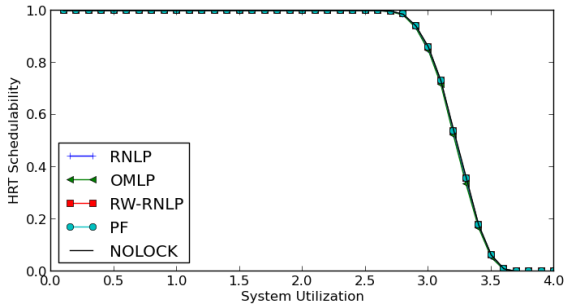

Figure 1136: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

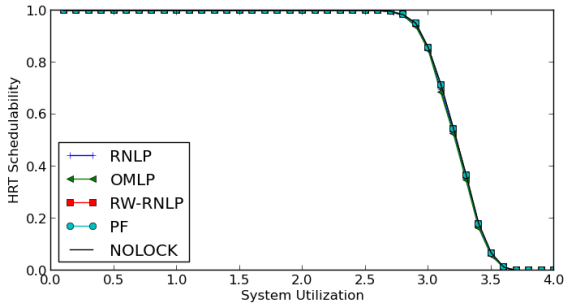

Figure 1137: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

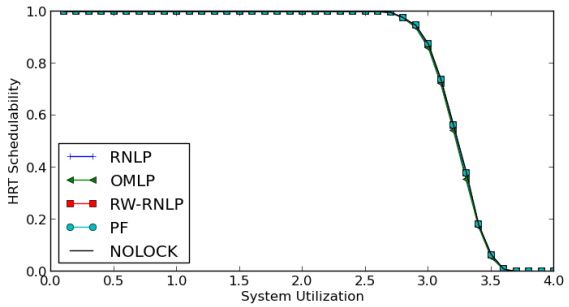

Figure 1138: Period: uni-short, Task utilization: uni-heavy, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

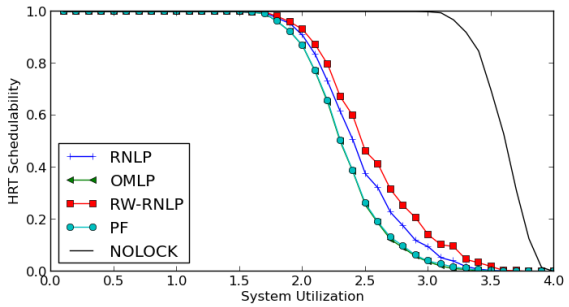

Figure 1139: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

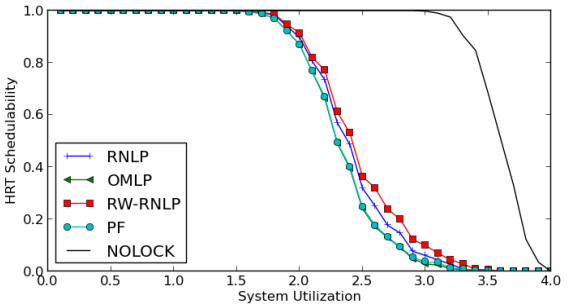

Figure 1140: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

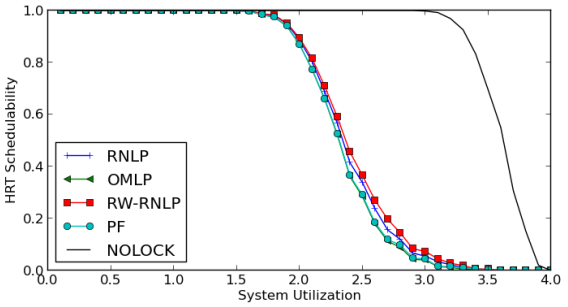

Figure 1141: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

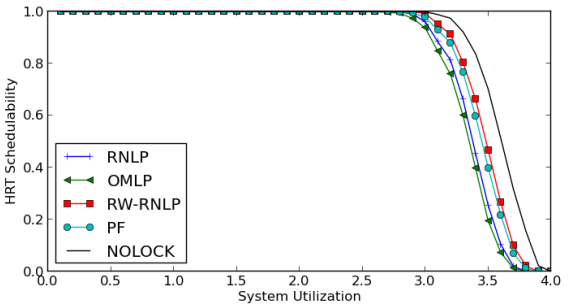

Figure 1142: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

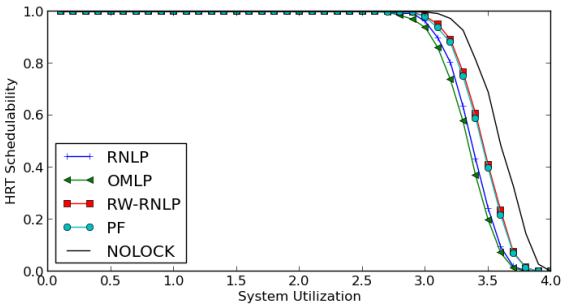

Figure 1143: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

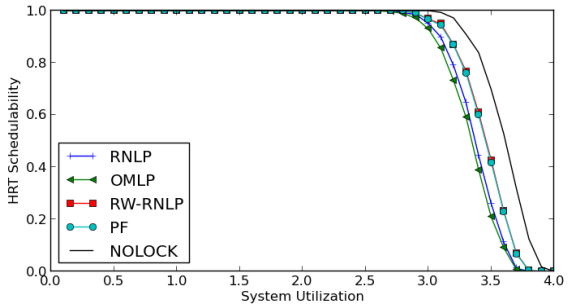

Figure 1144: Period: uni-short, Task utilization: uni-medium, Requests per job: 2, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

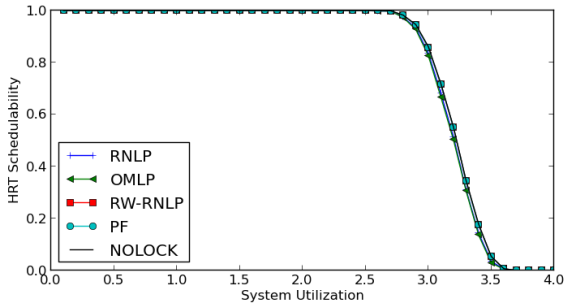

Figure 1145: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

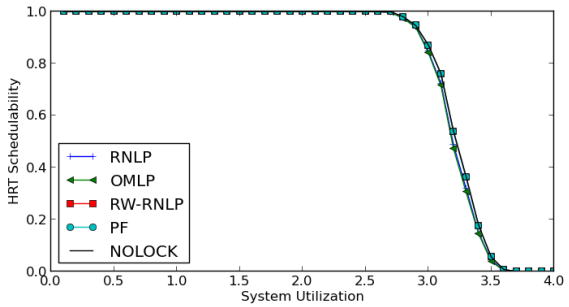

Figure 1146: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

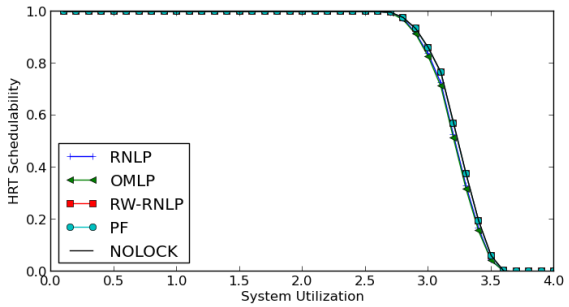

Figure 1147: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

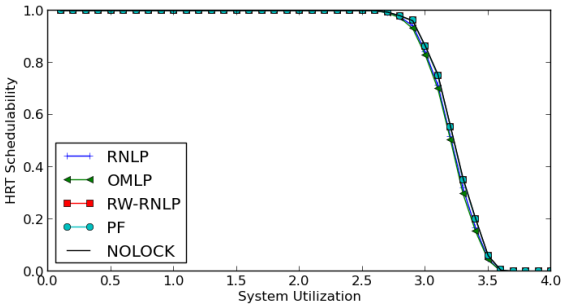

Figure 1148: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

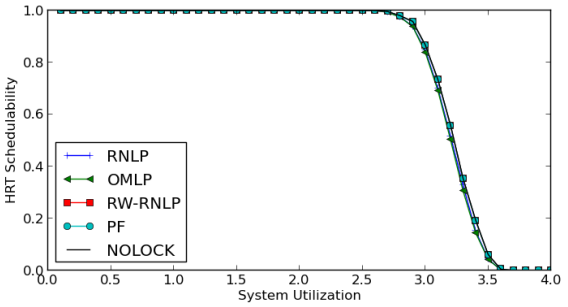

Figure 1149: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

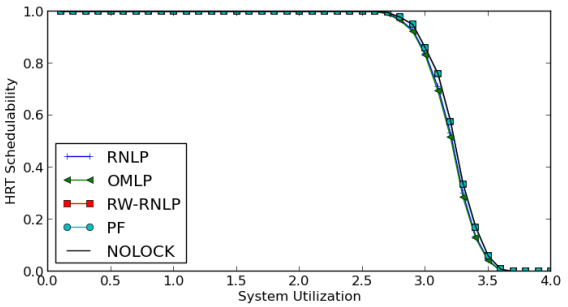

Figure 1150: Period: uni-short, Task utilization: uni-heavy, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$

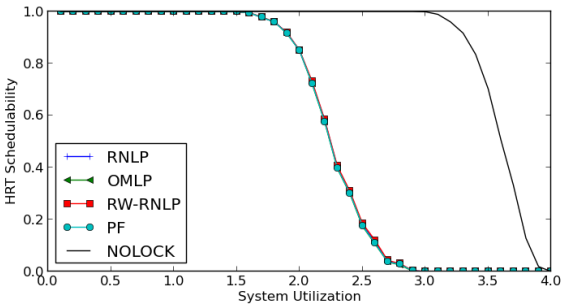

Figure 1151: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 1$

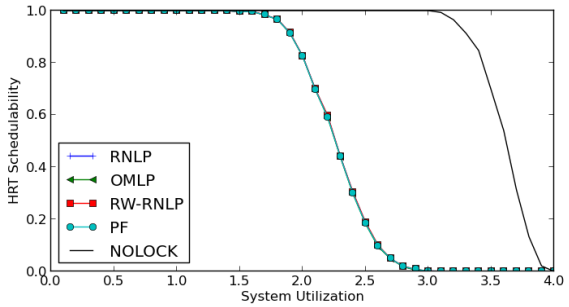

Figure 1152: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 2$

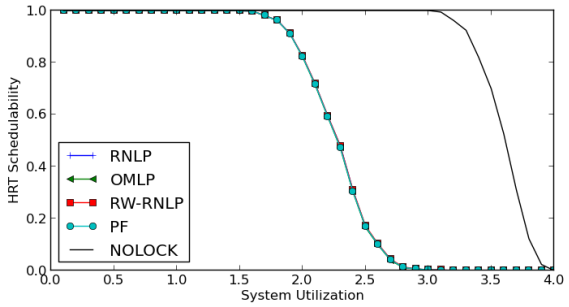

Figure 1153: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: large, $\mathcal{P}^w = 0.1$, $N^w = 4$

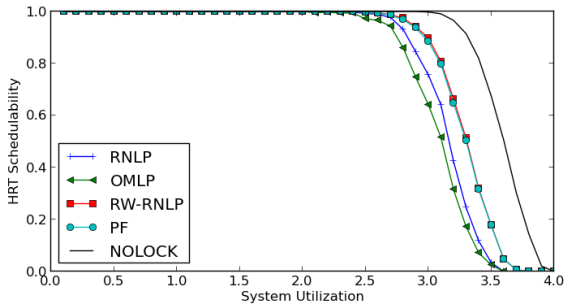

Figure 1154: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 1$

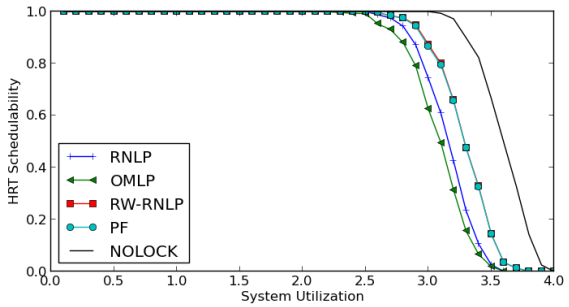

Figure 1155: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 2$

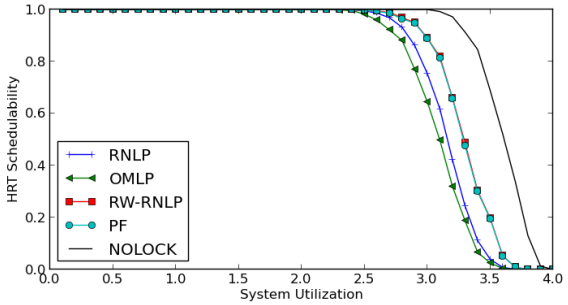

Figure 1156: Period: uni-short, Task utilization: uni-medium, Requests per job: 4, Read CS length: small, $\mathcal{P}^r = 0.9$, $N^r = 4$, Write CS length: small, $\mathcal{P}^w = 0.1$, $N^w = 4$