ARTICLE 16 LAYOFF AND REDUCTION IN TIME

A. GENERAL CONDITIONS

- 1. Layoffs may be temporary or indefinite and may occur because of budgetary reasons, curtailment of operations, lack of work, reorganization, or redefinition of the University's or department's needs.
- 2. The University shall have the sole right to determine:
 - a. when temporary or indefinite layoffs in career positions shall occur, the units of layoff, and the unit in which the layoffs shall occur, and
 - b. which classification and/or positions are to be subject to layoff.
- 3. If the University determines that a layoff is necessary, it will be accomplished in accordance with the provisions of this Article.
- 4. When the University determines that there is to be a change in a layoff unit within the bargaining unit, it shall give UPTE advance notice of at least thirty (30) calendar days, if feasible, and upon request shall meet and discuss such proposed changes. Changes to a layoff unit shall not occur more frequently than each one-hundred twenty (120) calendar days.
- 5. The terms of this Article shall not apply to probationary or non-career employees, except as specifically provided in this Article.
- 6. The procedures for fulfilling the terms of this Article may vary by campus. However, campus procedures must be consistent with the provisions of this Article.

B. DEFINITIONS

- 1. A layoff is an involuntary:
 - a. separation of an employee from employment as implemented in accordance with the provisions of this Article, or
 - b. transfer of a career employee to a non-career position, or
 - c. reduction in the appointment rate of an individual employee, or
 - d. reassignment of an employee in a full-time career position to a partialyear career position, to a limited appointment position, or to a part-time position at a fixed or variable percentage of time.

- 2. A temporary layoff is one for which the University specifies an affected employee's date for return to work of not more than one-hundred twenty (120) calendar days from the effective date of the layoff.
- 3. An indefinite layoff is one for which the affected employee receives no date for return to work, or no date of restoration to her/his former appointment rate.

C. TEMPORARY LAYOFF

If the University determines that a temporary layoff of one-hundred twenty (120) calendar days or less is imminent, it shall be implemented in accordance with the provisions of this Section.

1. Notice

When the University identifies particular employee(s) to be affected by a temporary layoff, it shall give the individual employee written notice of the expected beginning and ending dates of the temporary layoff as follows:

- a. The University shall give, if feasible, fifteen (15) calendar days notice of the expected beginning and ending dates of the layoff to the affected employee(s).
- b. If less than fifteen (15) calendar days notice is granted for temporary layoff, the affected employee(s) may receive straight time pay in lieu of notice for each additional day the employee(s) would have been on pay status had the employee(s) been given fifteen (15) calendar days notice. Pay in lieu of notice is provided for reductions in appointment rate only for the difference between the two rates.
- c. If the ending date of the temporary layoff is changed and the total duration of the temporary layoff is less than one-hundred twenty (120) calendar days, the University shall give the affected employee fourteen (14) calendar days notice of the date to return to work. The employee shall return to work on the date provided in the notice, unless the employee and the University agree otherwise.
 - The employee shall return to work on the date provided in Section C.1., Notice, above, and shall notify the University in advance if he/she is unable to do so. The University and the employee shall attempt to establish a mutually agreeable return date. If, due to operational considerations, the University cannot accommodate the employee's request for

an alternate return date, he/she will be considered to have resigned effective on the date provided in the notice in Section C.1., above.

2) Notice of a change in temporary layoff dates does not invoke the pay in lieu of notice provisions of this Article.

2. Conversion Of Temporary To Indefinite Layoff

For conversion from temporary layoff to indefinite layoff, the University shall give thirty (30) calendar days notice, if feasible. If less than thirty (30) calendar days notice is given, the employee will receive fifteen (15) calendar days pay in lieu of notice.

3. The University may institute the State of California Work Sharing Unemployment Insurance Program on each campus/hospital/LBNL where applicable.

D. INDEFINITE LAYOFF

The University shall effectuate indefinite layoffs as follows.

1. Alternatives To Layoff

In order to avoid a layoff, the University may reassign an employee to a position for which the employee is qualified at the same or greater percentage of time and at the same or higher rate of pay. Such action will nullify the layoff.

2. Selection For Layoff

- a. The order of indefinite layoff of employees in the same classification within the unit of layoff shall be in inverse order of seniority. In the event all employees in a unit of layoff are equally affected by layoff of ten percent (10%) or less, seniority provisions do not apply.
- b. "Seniority" is calculated by full-time-equivalent months (or hours) of University service. Employment prior to a break in service shall not be counted. When employees have the same number of full-timeequivalent months (or hours), the employee with the most recent date of appointment shall be considered the less senior employee.
- c. Regardless of seniority, the department may elect to invite all employees in the same class within a layoff unit to volunteer for layoff. In that case, the union shall be notified of the invitation at the

same time the invitation is transmitted to the employees. The union shall also be informed of the identities of volunteers before the layoff occurs.

- d. The University may retain employees irrespective of seniority who possess special knowledge, skills, or abilities which are not possessed by other employees in the same classification in the layoff unit and which are necessary to perform the ongoing functions of the department. If an employee with less seniority is to be retained, the University shall notify the union in advance of the layoff date and in writing of the special knowledge, skills and abilities which support the retention of the less senior employee.
- e. The department head shall select employees for layoff, but shall minimize indefinite layoffs from career positions by first reviewing the necessity for existing limited appointment and casual/restricted positions within the department.
- f. Where electronic job placement bulletin boards are in use, the University shall provide bargaining unit members access to such placement bulletin boards to the same degree as such bulletin boards are made available to other staff employees. Employees who are laid off will be provided information about other University locations job placement bulletin boards according to local procedures.

3. Notice

a. When the University identifies particular employees to be affected by an indefinite layoff, it shall give individual written notice of the effective date of the layoff to each affected employee and the union. Advance notice will be provided as follows:

For indefinite layoff, the University shall give sixty (60) calendar days notice, if feasible. The University may pay up to thirty (30) days of the sixty (60) days notice period in lieu of notice. In no event shall an employee receive less than thirty (30) days notice of indefinite layoff or pay in lieu of notice. For conversion from temporary to indefinite layoff, the University shall give thirty (30) calendar days notice, if feasible.

b. An employee shall be provided all rights under Sections D.4. and D.5., below, beginning at the time of notification of his/her indefinite layoff.

c. An employee shall receive at the time of layoff, information on how to activate preference and recall rights according to local campus/hospital/LBNL procedures. Eligible employees must indicate an interest in and eligibility for the specific preference and/or recall rights. If the employee requests information about preference, recall and active vacant openings, the University will provide the information about how to access related job opening information. The University will, upon the employee's employment application, confirm the eligibility for preference or recall and will assess the employee's qualifications.

4. Recall

- a. Career employees who are indefinitely laid off shall have a right to be recalled in order of seniority of those employees applying for recall to an active, vacant career position for which the employee is qualified in the same classification and department from which they were laid off. An active career position is a position which the University, in its sole discretion, determines to fill. The eligible employee shall file a timely application for recall and self-identify that they are eligible for recall.
- b. Career employees who are eligible for recall shall retain recall eligibility based on the amount of University service at the time the layoff occurs as follows:
 - 1) for one (1) year for up to five (5) years University service,
 - 2) for two (2) years for up to ten (10) years University service,
 - 3) for three (3) years for more than ten (10) years University service.
- c. Employees recalled from layoff status who are not returned to their same job and who fail to perform satisfactorily, as determined by the University, may at any time during the six (6) months following such recall be returned to layoff status with restoration of the unused portion of their recall rights.
- d. The right to recall terminates at the end of the eligibility period.

5. **Preferential Rehire**

 A non-probationary career employee who is indefinitely laid off shall have preferential rehire status for an active vacant career position. An active career position is a position which the University, in its sole discretion, determines to fill. The eligible employee shall file a timely application for preference and self-identify that they are eligible for rehire preference according to this Section.

- b. Such employees are rehired provided:
 - 1) the active, vacant career position is in the same bargaining unit and at the same campus/hospital/LBNL as the position from which the employee was laid off; and
 - the active, vacant career position is in a class with the same or lower salary range maximum as the class from which the employee was laid off; and
 - 3) the active, vacant career position is at the same or lesser percentage of time as the position from which the employee was laid off, except as provided in Section D.6.
- c. The laid off non-probationary career employee will, along with any other qualified laid off University employees, be given preferential consideration for an active vacant career position which is being filled by the campus/hospital/LBNL, provided the conditions in Sections D.5.b.1-3. above are met. Qualified laid off University employees will be interviewed for the position. In order to be placed in such a position, the employee must be fully qualified to perform the duties of the position.
- d. Employees who are eligible for preferential rehire status with less than five (5) years of seniority at the time the layoff occurs shall retain preferential rehire status eligibility for one year. Employees who are eligible for preferential rehire status with five (5) years, but less than ten (10) years seniority at the time the layoff occurs shall retain preferential rehire status eligibility for two (2) years. Employees who are eligible for preferential rehire status with ten (10) years or more seniority shall retain preferential rehire status eligibility for three (3) years. An employee may exercise her/his rights to preferential rehire immediately after the employee receives written notification of layoff and meets with the campus/hospital/LBNL representative designated in the layoff notice.
- e. Employees preferentially rehired from layoff status who fail to perform satisfactorily may, at any time during the six (6) months following such return, be returned to layoff status with restoration of full preferential rehire status. In addition, an employee, at her/his option, may request to be returned to layoff status within sixty (60)

calendar days of rehire. The time on job status will not be counted as part of preferential rehire eligibility time.

- f. According to local procedures, employees who are on layoff status and who indicate an interest in University-offered training classes will be offered classes when there are spaces available after the location's deadline for active employees to sign up.
- g. Preferential Rehire Termination

The preferential consideration described above shall terminate at the end of the period of eligibility described in Section D.5.d. above, or if an employee:

- 1. refuses an offer to return, at the same or greater percentage of time, to that department/division and class from which laid off; or
- 2. accepts any career position; or
- 3. refuses two (2) offers of employment for a career position at the same or higher salary level and the same percentage of time as the position held by the employee at the time of layoff.
- 6. If an employee voluntarily reduces her/his time due to budgetary reasons, curtailment of operations, lack of work, reorganization, or redefinition of the University's or department's needs within one (1) year prior to her/his layoff, the employee is entitled to recall/rehire rights to a percentage appointment equal to that from which the employee voluntarily stepped down. In order to be eligible for such increased recall/rehire rights, the employee must submit to her/his supervisor a written statement confirming the offer for the voluntary reduction in time when the voluntary reduction in time occurs and her/his supervisor must approve the voluntary reduction in time.
- 7. **Severance** Effective through September 30, 2017, career employees who receive their notice of indefinite layoff may elect severance pay either a) or b) below within fourteen (14) calendar days as follows: If the employee does not timely elect either a) or b), and notify the University according to local procedures, the employee will be determined to have elected b).
 - a. A career employee who has received her/his notice of indefinite layoff may elect, in writing to receive severance pay in lieu of preferential rehire and recall rights with reduced severance, within

fourteen (14) calendar days of receipt of the notice of layoff. Election is irrevocable. Each campus department shall, in each instance of layoff, not reduction in time, offer severance in lieu of preferential rehire and recall rights with reduced severance to all employees in the department affected by the layoff. Employees who are reduced in time may elect only severance pay (proportional to their reduction in time) in lieu of preferential rehire and recall rights. Severance pay shall be in accordance with the following:

- Employees who elect severance pay in lieu of preference/recall with reduced severance shall be paid a lump sum amount of one week (five (5) workdays, based on eight-hour (8-hour) days) of salary for each full year of service from the most recent break in service, up to a maximum of sixteen (16) weeks of base pay.
- 2) Employees who are laid off following a reduction in time that occurred within sixty (60) calendar days of the layoff notice shall be eligible for severance, or reduced severance, on the basis of their percentage of appointment just prior to their reduction in time.
- 3) This section shall not apply to temporary layoff (except as provided in Sections D.7.a. and D.7.a.2. above).

b. Reduced Severance (with Preference and Recall)

- 1) A career employee who has received her/his notice of indefinite layoff may elect, in writing, to receive preferential rehire and recall rights with reduced severance, as an alternative to severance (Section 7.a. above) within fourteen (14) calendar days of receipt of the notice of layoff. Election is irrevocable. Each campus department shall, in each instance of layoff, not reduction in time, offer severance in lieu of preferential rehire and recall rights with reduced severance to all employees in the department affected by the layoff. Reduced severance pay shall be in accordance with the following:
 - a) Employees with less than five (5) years of service receive no reduced severance.
 - b) Employees with five (5) or more years of service receive four (4) weeks or twenty (20) work days,

based on eight-hour (8-hour) days, reduced severance.

- c) Employees with thirteen (13) or more years of service receive eight (8) weeks or forty (40) work days, based on eight-hour (8-hour) days, reduced severance.
- 2) Employees who are laid off following a reduction in time that occurred within sixty (60) calendar days of the layoff notice shall be eligible for reduced severance on the basis of their percentage of appointment just prior to their reduction in time.
- 3) This Section shall not apply to temporary layoff (except as provided in Sections D.7.a. and D.7.a.2. above).
- c. UPTE will be notified if an employee has been provided severance or reduced severance. Should, as a result of a grievance, arbitration, or settlement agreement an employee be returned to work, the severance or reduced severance received will be deducted from the back pay award, if any, or credited as an advance on earnings, if proportional severance is to be returned. An employee cannot be returned to work without first repaying the severance or reduced severance or signing a severance repayment agreement. The employee's failure to complete her/his severance repayment obligation shall not increase the University's back pay liability, if applicable.
- d. When an employee is rehired to a career position before the expiration of the number of weeks for which the employee has received severance payments, he or she will be required to pay back the remaining severance amounts as a condition of employment. The repayment will be on a proportional basis if the rehired position is a different percentage than the original appointment.

If a career employee is rehired after previous layoff and severance payment and then subsequently laid off again, he/she may be eligible for additional severance based on employee's election in Section D.7 for the severance-eligible layoff. The employee's previous layoff election of severance or preference and recall with reduced severance will remain the same for any additional layoff action that occurs and the employee may be eligible for additional severance based on the following:

- Option 1 (break in service upon original layoff) employee is eligible only for severance based on service credit earned after break in service.
- Option 2 (no break in service) employee is eligible for severance repaid by employee plus severance based on additional service credit.

E. CONTINUITY OF SERVICE UPON REEMPLOYMENT

- 1. A layoff of one-hundred twenty (120) calendar days or less does not create a break in service.
- 2. Reemployment in a career position within the period of right to recall or preferential rehire does not create a break in service.
- 3. Seniority accrues, and benefit accruals are accumulated, only when an employee is on pay status.

F. LAWRENCE BERKELEY NATIONAL LABORATORY (LBNL)

1. Severance

Career employees (excluding term appointees) who are eligible for vacation and sick-leave credits and are laid off from employment for an indefinite period due to lack of work or lack of funds are eligible for severance payments in accordance with the following provisions. Career employees who are on temporary layoff status, temporary reduction in time, or permanently reduced in time are not eligible for severance payments.

a. **Definitions**

- i. **Continuous Service**: Service is continuous if an employee is on pay status each month without a break in service. A break in service occurs when there is a separation from Laboratory employment status.
 - (a) Periods on an approved leave without pay for military service; illness or injury compensable by workers' compensation; assignment to another research organization at the direction of the Laboratory; or an approved leave without pay for any period of thirty (30) calendar days or less are counted as periods of continuous service for the purposes of severance pay, as are periods on pay status before and after any other approved leave without pay.

- (b) Periods of employment before a break in service are not counted as periods of continuous service for purposes of severance pay.
- (c) Periods of employment as a student assistant, graduate student research assistant (GSRA), or other trainee positions are not counted as periods of continuous service for purposes of severance pay.
- (d) Periods of employment on variable time (once called indeterminate time) are not counted as periods of continuous service for purposes of severance pay.
- (e) Time spent as a postdoctoral fellow is counted toward calculating severance payment if the postdoctoral fellow continued their employment in a career appointment without a break in service.
- (f) When a limited appointment has been designated as a career appointment after attaining one thousand (1,000) hours of qualifying service in any twelve (12) consecutive months without a break in service of at least one hundred twenty (120) consecutive calendar days, these hours on pay status will be counted for purposes of severance pay. Qualifying service includes all time on pay status in one or more limited appointments at the University. However, only those hours worked at the Laboratory will be counted toward calculation of the severance payment.
- (g) Continuous service is reestablished when an employee is rehired from recall or preferential rehire status from the Laboratory.
- ii. **Equivalent Job**: An equivalent job is any career position with the Laboratory or the University at a beginning salary at least equal to the salary paid the employee in the job from which that employee was laid off, regardless of salary range.
- iii. One Week's Pay: One (1) week's pay for nonexempt hourly rated employees is defined as the basic hourly rate (excluding shift differential and overtime) times forty (40) hours or the specifically approved work week. One (1) week's pay for full time exempt employees is defined as the hourly equivalent of the monthly rate times forty (40) hours

(or, for part-time exempt employees, times the percentage time equivalent).

b. Severance Payment Calculations and Methods of Payment

- i. The severance payment will be made in an amount equal to one (1) week's pay for each year of continuous full-timeequivalent Laboratory service (including service at Lawrence Livermore National Laboratory and Los Alamos National Laboratory while these labs were managed by the University of California). A fractional year of full-time service of six (6) months or more is counted as one (1) year of service. The severance payment is not to exceed a total of twenty six (26) weeks' pay.
- ii. Severance will be paid in a lump sum at the time of termination.

c. Limitations

- i. Severance payments will not extend the period of employment beyond the date of termination due to layoff.
- ii. Severance payments made to an employee will not include payment for any period of service for which the employee has previously received such payment.
- iii. Severance payments will not be provided to an employee who has received a formal notification of layoff and who transfers to another Laboratory position or University career position without a break in service or to an employee who refuses a transfer to an equivalent job with the Laboratory or the University.
- iv. Severance payments will not be made to any employee who terminates for any reason other than layoff, with the following exceptions:
 - (a) An employee who resigns after receiving formal notification of layoff but before the effective date of layoff may be provided severance payments with the approval of the Chief Operating Officer (COO) or designee.
 - (b) An employee who resigns in lieu of another employee who would have been laid off may be provided

severance payments with the approval of the COO or designee. Normally, such approval will be given only if the resignation will not have a detrimental effect on work in progress and if the employee concerned had not announced plans to resign or retire before the announcement of a layoff within the employee's division.

- d. **Duplicate Pay**: An employee at the Laboratory shall not receive duplicate pay for any period during which s/he has received severance pay. In the event an employee is compensated by the Laboratory for any period during which s/he received severance pay, the employee shall be responsible for returning the severance pay for that period.
- e. **Repayment Upon Rehire**: Should an individual who has received severance payments be rehired at the Laboratory before the expiration of the number of weeks for which the employee has received severance payments, the amount of the balance will be repaid to the Laboratory.

2. **Re-Employment from Layoff**

a. Right to Recall to Layoff Division

- i. Only career employees who have passed probation and who did not volunteer for the layoff are eligible for recall.
- ii. An employee has the right to recall for three years from the date of layoff.
- iii. An employee who is separated or whose time is reduced because of layoff will be recalled in order of seniority into any active and vacant career position for which the employee is qualified when the position is in the same class and layoff unit and at the same or lesser percentage of time as the position held by the employee at the time of layoff.
- A layoff unit manager may reject an employee for recall only if the employee lacks qualifications required for the position. Reasons for rejection will be provided by the layoff unit manager, in writing, to the Head of the Human Resources Department for review and approval.
- v. An employee who is recalled for a position different from the one held at the time of layoff may, on written notification, be

required to serve a trial employment period of up to six months on rehire. An employee who is required to serve a trial employment period may, at any time during the trial employment period, return to layoff status at the employee's or the layoff unit manager's discretion. Time spent in trial employment will not count against the period of eligibility for recall or preference for rehire.

- vi. Right to recall terminates if an employee:
 - (a) refuses an offer to return to the layoff unit division and job title/code from which he or she was laid off at the same or greater percentage of time,
 - (b) refuses two offers of re-employment for career positions at the same or higher salary level and the same or greater percentage of time as the position he or she held at the time of layoff,
 - (c) accepts a career position at the same or higher salary level and the same or greater percentage of time as the position he or she held at the time of layoff, or
 - (d) retires.
- vii. Right to recall continues during, but is not extended by, periods of temporary, non-career Laboratory employment.
- viii. Right to recall is suspended if an employee does not respond to written notice of an employment opportunity or if the employee does not respond in the affirmative to periodic inquiries about continuing his/her right(s) after one year. Right to recall may be reinstated, however, on written request of the employee and approval of the Head of the Human Resources Department.

b. Preference for Re-Employment

- i. Only career employees who have passed probation and who did not volunteer for the layoff are eligible for preference for rehire rights.
- ii. An employee with less than five years of seniority has preference for re-employment for one year from the date of layoff. An employee with at least five but less than 10 years of seniority has preference for re-employment for two years

from the date of layoff. An employee with 10 years or more of seniority has preference for re-employment for three years from the date of layoff.

- iii. An employee who is separated or whose time is reduced because of layoff or who has received written notice of layoff or reduction in time within the two calendar months before the layoff date will be granted preference for re-employment or transfer to any active and vacant career position at the Laboratory for which the employee is qualified when the position is (1) at the same salary level or lower (as determined by the salary-range maximum) and (2) at the same or lesser percentage of time as the position held by the employee at the time of layoff. When written notice of layoff or reduction in time is given more than two months prior to the layoff date, the Head of Human Resources may authorize that preference for re-employment begin with the date of layoff notice.
- iv. During the two calendar months preceding the layoff date or beginning from the date of layoff notice (whichever is later), the Layoff Coordinator will give employees on preferential rehire status Laboratory-wide consideration for positions in the same job code and at the same or lesser percentage of time as the job from which the employee was laid off. In addition, during the preference eligibility period, preference will be given for any job that meets the requirements as noted in the above paragraph for which the employee requests to be considered within two weeks of the posting date of the position.
- v. An employee who has been terminated due to indefinite layoff will be given first consideration for preference for employment to active and vacant career positions, as described above, for which he/she has applied.
- vi. A layoff unit manager may reject an employee with preference for re-employment or transfer only if the employee lacks qualifications required for the position. Reasons for rejection will be provided by the layoff unit manager in writing to the Head of the Human Resources Department for review and approval.
- vii. An employee who is reassigned at his or her request during the pre-termination preference for re-employment period or rehired under preference for re-employment may, on written

notification, be required to serve a trial employment period of up to six months. An employee who is required to serve a trial employment period may at any time during the trial employment period return to layoff status at the employee's or the layoff unit manager's discretion with 30 days written notice. Time spent in trial employment will not count against the period of eligibility for recall or preferential rehire.

- viii. Right to preference for re-employment terminates if an employee:
 - (a) refuses an offer to return to the layoff unit and job title/code from which he or she was laid off at the same or greater percentage of time,
 - (b) refuses two offers of re-employment for career positions at the same or higher salary level and the same or greater percentage of time as the position he or she held at the time of layoff,
 - (c) accepts any career position, or
 - (d) retires.
- ix. Right to preference for re-employment continues during, but is not extended by, periods of temporary Laboratory employment.
- x. Right to preference for re-employment is suspended when an employee does not respond to written notice of an employment opportunity or if the employee does not respond to periodic inquiries about continuing his/her right(s) after one year. Preference for rehire may be reinstated, however, on written request of the employee and approval of the Head of the Human Resources Department.
- c. **Re-Employment at Another University Location**: If a person on recall and/or preferential rehire status desires to be considered for employment at a University of California campus or another laboratory, the Head of the Human Resources Department will provide the manager at that location with a copy of the individual's resume and a written request for consideration.
- d. **Benefits on Re-Employment**: When a person is re-employed within the period of right to recall and/or preference for reemployment, the periods before and after layoff are considered as continuous service for the limited purpose of applying University

policies concerning sick leave, vacation, holidays, probationary period, reduced fee enrollment, seniority points for layoff, military leave, and merit salary increases. All prior sick leave credit will be reinstated during the period of eligibility up to a period of three years. Benefits and credits for service, including those relating to retirement systems, do not accrue for periods on recall and/or preferential rehire status. The employee should contact the Benefits Office/Department immediately upon re-employment for assistance.

- e. **Records and Reports**: The Human Resources Department Layoff Coordinator will maintain a current roster of all persons on recall and preferential rehire status and will record all referrals, offers of employment, rejections of persons by layoff unit managers and refusals of employment offers by individuals on the preferential rehire list.
- f. **Voluntary Reduction in Force**: If an employee voluntarily reduces his or her time within one (1) year prior to layoff because of budgetary or operational considerations that, in the judgment of the Laboratory, make it necessary to reduce the hours of the workforce, the employee is entitled to recall/rehire rights at a percentage of time equal to that from which the employee voluntarily reduced his or her time. The request for the voluntary reduction must be submitted by the employee in writing and approved by the supervisor and must state the effective date and the percentage of the reduction in time.