

- hCurrentSeniority
 - INIT** hInitSeniority
 - $\pm dt \cdot h$ +dt*hAdvancement
 - $\pm dt \cdot h$ -dt*hDemotion
 - Husband's Current job Seniority level. Similar to government positions in the US, it is a numerical heirarchy from 0 to 20. Most companies also have a heirarchy of job seniority, but label them names like: entry-level engineer, engineer, senior engineer, first level manager, second level manager, etc. This variable simplifies these names to numbers. This level and its associated rates implement a discrete function in the model.

- hLastSeniorityChangeTime
 - INIT** 1
 - $\pm dt \cdot h$ -dt*hOldSeniorityChangeTime
 - $\pm dt \cdot h$ +dt*hSeniorityChangeTime
 - Husband's Last Seniority Change Time. The time (in years) during the simulation of the last promotion, demotion, or start of a new job.

- hLTAadeq
 - INIT** hTDJadeq
 - $\pm dt \cdot Adj$ +dt*Adj_hLTAadeq
 - Husband's Long-Term Average Adequacy. This tracks how adequately the time demands of the job are met over a long period of time. This drives both promotions and demotions. It is inialized with the initial adequacy of the actual wage work hours. It is a first order average.

- hUnemplTime
 - INIT** 0
 - $\pm dt \cdot h$ +dt*hTally
 - $\pm dt \cdot h$ -dt*hFlush
 - Husband's Unemployment Time. When not working for a wage, this level keeps track of how many years unemployed. Once working again, this value is flushed to 0.

- husbandsADWT
 - INIT** hMinDWT
 - $\pm dt \cdot Adj$ +dt*Adj_hADWT
 - Husband's Actual Domestic Work Time. Husband's actual hours spent on domestic work each week.

- husbandsAWWT
 - INIT** hTDJob
 - $\pm dt \cdot Adj$ +dt*Adj_hAWWT
 - Husband's Actual Wage Work Time. Husband's actual hours spent on wage work each week.

- husbandsSleepTime
 - INIT** hMinSleepTime
 - $\pm dt \cdot Adj$ +dt*Adj_hSleep
 - Husband's Sleep Time. Husband's actual hours spent sleeping each week.

- wCurrentSeniority
 - INIT** wInitSeniority
 - $\pm dt \cdot w$ +dt*wAdvancement
 - $\pm dt \cdot w$ -dt*wDemotion
 - Wife's Current job Seniority level. Similar to government positions in the US, it is a numerical heirarchy from 0 to 20. Most companies also have a heirarchy of job seniority, but label them names like: entry-level engineer, engineer, senior engineer, first level manager, second level manager, etc. This variable simplifies these names to numbers. This level and its associated rates implement a discrete function in the model.

- wifesADWT
 - INIT** wMinDWT
 - $\pm dt \cdot Adj$ +dt*Adj_wADWT
 - Wife's Actual Domestic Work Time. Wife's actual hours spent on domestic work each week.

- wifesAWWT
 - wTDJob
 - +dt*Adj_wAWWT
 - Wife's Actual Wage Work Time. Wife's actual hours spent on wage work each week.
- wifesSleepTime
 - wMinSleepTime
 - +dt*Adj_wSleep
 - Wife's Sleep Time. Wife's actual hours spent sleeping each week.
- wLastSeniorityChangeTime
 - 0
 - +dt*wSeniorityChangeTime
-dt*wOldSeniorityChangeTime
 - Wife's Last Seniority Change Time. The time (in years) during the simulation of the last promotion, demotion, or start of a new job.
- wLTAadeq
 - wTDJadeq
 - +dt*Adj_wLTAadeq
 - Husband's Long-Term Average Adequacy. This tracks how adequately the time demands of the job are met over a long period of time. This drives both promotions and demotions. It is initialized with the initial adequacy of the actual wage work hours. It is a first order average.
- wUnemplTime
 - 0
 - +dt*wTally
-dt*wFlush
 - Wife's Unemployment Time. When not working for a wage, this level keeps track of how many years unemployed. Once working again, this level is flushed to 0.
- Adj_hADWT
 - = (hFinIndDWT-husbandsADWT)/hDWT_AdjDelay
 - Adjusting Husband's Actual Domestic Work Time. The change in actual weekly domestic work hours. This is a traditional smooth: the difference between the Final Indicated Domestic Work Time and the Actual Domestic Work Time over the Domestic Work Time Adjustment Delay.
- Adj_hAWWT
 - = IF(hWorkingForWage,
(hFinIndWWT-husbandsAWWT)/hWWTAdjDelay,
-husbandsAWWT/TIMESTEP)
 - Adjusting Husband's Actual Wage Work Time. The change in actual weekly wage work hours. If the person is working, then this is a traditional smooth. If the person is not working, the actual wage work hours are zeroed out.
- Adj_hLTAadeq
 - = (hTDJadeq-hLTAadeq)/hLTAdeq
 - Adjustment to Husband's Long-Term Average Adequacy. This is the standard equation for a long-term average.
- Adj_hSleep
 - = IF(hFinIndSleep > husbandsSleepTime,
(hFinIndSleep - husbandsSleepTime)/RefDecrAdjDelay,
(hFinIndSleep - husbandsSleepTime)/RefIncrAdjDelay)
 - Adjusting Husband's Sleep hours. It takes less time to adjust to an increase in time spent sleeping than to a decrease. The delays are reversed from how they are used in wage work and domestic work hours on purpose -- it is easier to sleep more than to sleep less!









- Adj_wADWT
 = (wFinIndDWT-wifesADWT)/wDWT_AdjDelay
 Adjusting Wife's Actual Domestic Work Time. The change in actual weekly domestic work hours. This is a traditional smooth: the difference between the Final Indicated Domestic Work Time and the Actual Domestic Work Time over the Domestic Work Time Adjustment Delay.
- Adj_wAWWT
 = IF(wWorkingForWage,
 (wFinIndWWT-wifesAWWT)/wWWTAdjDelay,
 -wifesAWWT/TIMESTEP)
 Adjusting Wife's Actual Wage Work Time. The change in actual weekly wage work hours. If the person is working, then this is a traditional smooth. If the person is not working, the actual wage work hours are zeroed out.
- Adj_wLTAadeq
 = (wTDJadeq-wLTAadeq)/wLTAdelay
 Adjustment to Husband's Long-Term Average Adequacy. This is the standard equation for a long-term average.
- Adj_wSleep
 = IF(wFinIndSleep > wifesSleepTime,
 (wFinIndSleep - wifesSleepTime)/RefDecrAdjDelay,
 (wFinIndSleep - wifesSleepTime)/RefIncrAdjDelay)
 Adjusting Wife's Sleep hours. It takes less time to adjust to an increase in time spent sleeping than to a decrease. The delays are reversed from how they are used in wage work and domestic work hours on purpose -- it is easier to sleep more than to sleep less!
- hAdvancement
 = IF(hPromotionOffer, 1/TIMESTEP, 0)
 Husband's Advancement. If offered a promotion, then the current seniority level increases by 1.
- hDemotion
 = IF(hCurrentSeniority > 0 AND hDemotionIndicator, 1/TIMESTEP, 0)
 Husband's Demotion. If earns a demotion (either through being unemployed or not working adequately) then the seniority level decreases by 1. The seniority level never drops below 0.
- hFlush
 = IF(hNewJob, hUnemplTime/TIMESTEP, 0)
 Husband's unemployment Flush. As soon as a new job is started, all unemployment time is zeroed out.
- hOldSeniorityChangeTime
 = IF(hPromotionOffer OR hDemotionIndicator OR hNewJob, hLastSeniorityChangeTime/TIMESTEP, 0)
 Husband's Old Seniority Change Time. Flush the last time there was a promotion, demotion, or job change to make room for the current time.
- hSeniorityChangeTime
 = IF(hPromotionOffer OR hDemotionIndicator OR hNewJob, TIME/TIMESTEP, 0)
 Husband's Seniority Change Time. Capture the time (in years) of the current promotion, demotion, or start of a new job.
- hTally
 = NOT hWorkingForWage
 Husband's unemployment Tally. As long as not working for a wage, one year is continuously added every year.
- wAdvancement
 = IF(wPromotionOffer, 1/TIMESTEP, 0)
 Wife's Advancement. If offered a promotion, then the current seniority level increases by 1.
- wDemotion
 = IF(wCurrentSeniority > 0 AND wDemotionIndicator, 1/TIMESTEP, 0)
 Wife's Demotion. If earns a demotion (either through being unemployed or not working adequately) then the seniority level decreases by 1. The seniority level never drops below 0.

- wFlush
 = IF(wNewJob, wUnemplTime/TIMESTEP, 0)
 [📄] Wife's unemployment Flush. As soon as a new job is started, all unemployment time is zeroed out.
- wOldSeniorityChangeTime
 = IF(wPromotionOffer OR wDemotionIndicator OR wNewJob, wLastSeniorityChangeTime/TIMESTEP, 0)
 [📄] Wife's Old Seniority Change Time. Flush the last time there was a promotion, demotion, or job change to make room for the current time.
- wSeniorityChangeTime
 = IF(wPromotionOffer OR wDemotionIndicator OR wNewJob, TIME/TIMESTEP, 0)
 [📄] Wife's Seniority Change Time. Capture the time (in years) of the current promotion, demotion, or start of a new job.
- wTally
 = NOT wWorkingForWage
 [📄] Wife's unemployment Tally. As long as not working for a wage, one year is continuously added every year.
- AdeqOfhDWTforCAW
 = IF(hAdjCAWdetDWT>0, husbandsADWT/hAdjCAWdetDWT, 1)
 [📄] Adequacy of Husband's Domestic Work Time for Culture, Attitude and Wage. The adequacy of the person's weekly actual domestic work hours compared with the weekly expectations from culture, personal attitude, and wage. If the person's hours are adequate, the variable is equal to 1, if inadequate the variable is less than one, and if more than adequate the variable is greater than 1. The expectations for culture, attitude, and wage will never drop below the person's minimum domestic work time (MinDWT), and since this must be positive, AdjCAWdetDWT will always be greater than zero. (It will only ever be zero under extreme test conditions that force it to zero (MinDWT = 0 and CAWdetPercent = 0).)
- AdeqOfHWWT
 = IF(hDesiredWWT>0, husbandsAWWT/hDesiredWWT, 1)
 [📄] Adequacy of Husband's Wage Work Time. The adequacy of the weekly actual wage work hours compared with the weekly desired wage work hours. If the hours are adequate, the variable is equal to 1, if inadequate the variable is less than one, and if more than adequate the variable is greater than 1. If the desired wage work hours are 0 (the person is not working), the value of the variable is 1 -- zero desired hours can always be met adequately!
- AdeqOfwDWTforCAW
 = IF(wAdjCAWdetDWT>0, wivesADWT/wAdjCAWdetDWT, 1)
 [📄] Adequacy of Wife's Domestic Work Time for Culture, Attitude and Wage. The adequacy of the person's weekly actual domestic work hours compared with the weekly expectations from culture, personal attitude, and wage. If the person's hours are adequate, the variable is equal to 1, if inadequate the variable is less than one, and if more than adequate the variable is greater than 1. The expectations for culture, attitude, and wage will never drop below the person's minimum domestic work time (MinDWT), and since this must be positive, AdjCAWdetDWT will always be greater than zero. (It will only ever be zero under extreme test conditions that force it to zero (MinDWT = 0 and CAWdetPercent = 0).)
- AdeqOfWWWT
 = IF(wDesiredWWT>0, wivesAWWT/wDesiredWWT, 1)
 [📄] Adequacy of Wife's Wage Work Time. The adequacy of the weekly actual wage work hours compared with the weekly desired wage work hours. If the hours are adequate, the variable is equal to 1, if inadequate the variable is less than one, and if more than adequate the variable is greater than 1. If the desired wage work hours are 0 (the person is not working), the value of the variable is 1 -- zero desired hours can always be met adequately!
- AdequacyOfTotalDWTforTDF
 = TotalDWT/TimeDemandsOfFamily
 [📄] Adequacy of Domestic Work Time. The adequacy of the weekly total actual domestic work hours compared with the weekly time demands of the family. If the couple's hours are adequate, the variable is equal to 1, if inadequate the variable is less than one, and if more than adequate the variable is greater than 1. The time demands of the family is not realistic below the sum of the husband's and wife's minimum domestic work times (h_min_DWT + w_min_DWT), and since these must be positive, it will never go to zero.

- Case1
 - = 1 + STEP(-1, 40)
 - ☰ Case 1: The wife works continuously for 40 years after her marriage, then retires at age 65.
- Case2
 - = 1 + STEP(-1, 5) + STEP(1, 10) + STEP(-1, 40)
 - ☰ Case 2: The wife works for 5 years after her marriage, takes 5 years off to care for children, then reenters the workforce and works until she retires at age 65.
- Case3
 - = 1 + STEP(-1, 5) + STEP(1, 15) + STEP(-1, 40)
 - ☰ Case 3: The wife works for 5 years after her marriage, takes 10 years off to care for children, then reenters the workforce and works until she retires at age 65.
- CulturalExpectationFor_w
 - = 100-CulturalExpectationFor_h
 - ☰ Cultural Expectation for Wife. The cultural expectation about what percentage of the domestic work time one's gender should do. This is interdependent with the Cultural Expectation for the Husband, as our culture creates expectations about what both husband and wife should do at the same time.
- EffectOfLTAon_hInterval
 - = GRAPH(hLTAadeq,0,0.2,[20,10,9,5,2,1,0.65,0.55,0.5,0.5,0.5"Min:0;Max:10"])
 - ☰ Effect of Long Term average wage work Adequacy on Husband's promotion Interval. When long-term average adequacy is equal to 1, then the effect is 1. When long-term average adequacy is in the range around the value 1, then the effect is not too far from 1. The lower the long-term average adequacy, the larger the promotion interval will be, so the larger the effect value is. The higher the long-term average adequacy, the shorter the promotion interval will be, so the smaller the effect value is. The smallest value is 0.5, as the employer is unlikely to reduce the standard promotion interval by more than 1/2.
- EffectOfLTAon_wInterval
 - = GRAPH(wLTAadeq,0,0.2,[20,10,9,5,2,1,0.65,0.55,0.5,0.5,0.5"Min:0;Max:10"])
 - ☰ Effect of Long Term average wage work Adequacy on Wife's promotion Interval. When long-term average adequacy is equal to 1, then the effect is 1. When long-term average adequacy is in the range around the value 1, then the effect is not too far from 1. The lower the long-term average adequacy, the larger the promotion interval will be, so the larger the effect value is. The higher the long-term average adequacy, the shorter the promotion interval will be, so the smaller the effect value is. The smallest value is 0.5, as the employer is unlikely to reduce the standard promotion interval by more than 1/2.
- EffectOfSeniorityOn_hWages
 - = GRAPH(hCurrentSeniority,0,1, [10000,15000,20000,25000,30000,35000,40000,50000,60000,70000,80000,90000,105000,120000,135000,155000,175000,205000,235000,275000,315000"Min:0;Max:300000"])
 - ☰ Effect of Seniority on Husband's Wages. This particular wage curve assumes a university education and a well-paying professional career. In other words, it is upper middle class to upper class. It also stops increasing at seniority level 20. To make the model apply to a variety of career profiles and economic classes, an array of wage curves could be used.
- EffectOfSeniorityOn_wWages
 - = GRAPH(wCurrentSeniority,0,1, [10000,15000,20000,25000,30000,35000,40000,50000,60000,70000,80000,90000,105000,120000,135000,155000,175000,205000,235000,275000,315000"Min:0;Max:300000"])
 - ☰ Effect of Seniority on Wife's Wages. This particular wage curve assumes a university education and a well-paying professional career. In other words, it is upper middle class to upper class. It also stops increasing at seniority level 20. To make the model apply to a variety of career profiles and economic classes, an array of wage curves could be used.

- EffectOfSeniorityOnHTDJob
 - = GRAPH(hCurrentSeniority, 1, 1, [20, 35, 40, 40, 40, 45, 50, 55, 60, 65, 70"Min:0;Max:70"])
 - ☞ Effect of Seniority on Husband's Time Demands of the Job. Based on seniority level, a certain number of hours each week are expected by the employer to be spent on wage work.
- EffectOfSeniorityOnWTDJob
 - = GRAPH(wCurrentSeniority, 1, 1, [20, 35, 40, 40, 40, 45, 50, 55, 60, 65, 70"Min:0;Max:70"])
 - ☞ Effect of Seniority on Wife's Time Demands of the Job. Based on seniority level, a certain number of hours each week are expected by the employer to be spent on wage work.
- hActualPromotionInterval
 - = MAX(hMinPromotionInterval, hAdeqDetPromotionInterval)
 - ☞ Husband's Actual Promotion Interval. This equals the Adequacy-Determined Promotion Interval unless it is too short, in which case it equals the Minimum Promotion Interval.
- hAdeqDetPromotionInterval
 - = hStandardPromotionInterval * EffectOfLTAon_hlinterval
 - ☞ Husband's Adequacy-Determined Promotion Interval. The time that must pass before a promotion, as determined by the wage work adequacy. It is based on the standard -- the lower the adequacy, the longer the time interval above the standard; the higher the adequacy, the shorter the time interval below the standard.
- hAdjCAWdetDWT
 - = MIN (MAX(hCAWdetDWT, hMinDWT), hPotentialDWT)
 - ☞ Husband's Adjusted Culture, Attitude, and Wage Determined Domestic Work Time. Until now the domestic work time responsibilities have been calculated based on the complete Time Demands of the Family without consideration of realistic constraints. This variable applies the following constraints: this person's domestic work time responsibility cannot be more than the total possible domestic work hours for one person (Potential DWT = Time Demands of the Family - the spouse's Minimum Domestic Work Time) nor can they be less than this person's own Minimum Domestic Work Time.
- hAnnualWages
 - = EffectOfSeniorityOn_hWages*hWorkingForWage
 - ☞ Husband's Annual Wages. Wages are based on seniority level and dependent on the husband working.
- hCAdetPercent
 - = CulturalExpectationFor_h*hWculture+hAttitude*(1-hWculture)
 - ☞ Husband's Culture and Attitude Determined Percent of Domestic Work Time. The Cultural Expectation Percent of Domestic Work Time and the Attitude Percent of Domestic Work Time are summed with weights to determine a combined percent responsibility. The assumption here is that the more weight one places on cultural expectation, the less weight one places on personal belief.
- hCAWdetDWT
 - = hCAWdetPercent*TimeDemandsOfFamily/100
 - ☞ Husband's Culture, Attitude, and Wage Determined Domestic Work Time. This variable translates the persons' domestic work time responsibility from a weekly percentage into weekly hours.
- hCAWdetPercent
 - = (hWageDetPercent*hWwage)+(hCAdetPercent*(1-hWwage))
 - ☞ Husband's Culture, Attitude, and Wage Determined Percent of Domestic Work Time. The Wage-Determined Percent of Domestic Work Time and the Culture and Attitude Determined Percent of Domestic Work Time are summed with weights to determine a combined responsibility. The assumption here is that the more weight one places on relative wages, the less weight one places on cultural expectations and personal belief.
- hDecrAdjDelay
 - = RefDecrAdjDelay
 - ☞ Husband's Decrease Adjustment Delay. The adjustment delay for an indicated decrease in the actual domestic work time.

- hDemotionIndicator
 - = IF(hWorkingForWage, (hLTAadeq <= hInadeqThreshold) AND (TIME >= (hLastSeniorityChangeTime + hDemotionReviewInterval) AND (hCurrentSeniority > 0)), (hUnemplTime>=hUnemplInterval) AND FRAC(hUnemplTime/hUnemplInterval) = 0 AND hCurrentSeniority>0)
 - 📖 Husband's Demotion Indicator. If set to 1, receives a demotion; if set to 0, there is no demotion. This is a boolean equation: If working for wages, a demotion (loss of a seniority level) is earned by working inadequately for a length of time (measured by Long Term Average Adequacy falling below the inadequacy threshold), but only if it has also been at least a year since the last demotion. If not working, the current seniority (or career assets) depreciates -- to implement this a demotion (loss of a seniority level) is earned for every year unemployed, until the seniority level reaches 0.
- hDesiredWWT
 - = (hTDJob + hDiscWWT * WageWorkHigherPriorityFor_h)*hWorkingForWage
 - 📖 Husband's Desired Wage Work Time. This is the desired number of hours to work for wages each week. At a minimum it is the time demands of the job. If wage work is higher priority than domestic work for this spouse, then it also includes the discretionary time targeted for wage work.
- hDiscretionaryHours
 - = TotalHoursInWeek - (hMinWWT + hMinDWT + hMinSleepTime)
 - 📖 Husband's Discretionary Hours. These are the hours each week, above and beyond the minimum requirements, that can be allocated between wage work, domestic work, sleep, and leisure.
- hDWT_AdjDelay
 - = IF(hFinIndDWT>husbandsADWT, hIncrAdjDelay, hDecrAdjDelay)
 - 📖 Husband's Domestic Work Time Adjustment Delay. It takes longer to adjust to an increase in the time spent doing domestic work than to a decrease in the time spent. Additionally, if cultural expectations and personal beliefs don't support one's performance of domestic work, in addition to a slower ramp up, one will be actively resistant to an increase. If cultural expectations and personal beliefs do support one's performance of domestic work, then there will be no added resistance. Therefore, if the indicated hours are increasing, the longer Increase and Resisting Adjustment Delay value is used, otherwise the shorter Decrease Adjustment Delay value is used.
- hDWTpercentage
 - = (husbandsADWT/TotalDWT)*100
 - 📖 Husband's Domestic Work Time Percentage. The percentage of the total domestic work time that the husband works.
- hFinIndDWT
 - = IF(WageWorkHigherPriorityFor_h, hTimeSupply(SecondPriority) + hMinDWT, hTimeSupply(FirstPriority) + hMinDWT)
 - 📖 Husband's Final Indicated Domestic Work Time. The number of domestic work hours allocated (at least the minimum domestic work hours). Which array element any incremental hours come from depends on the priority of domestic work (first or second).
- hFinIndSleep
 - = hTimeSupply(ThirdPriority) + hMinSleepTime
 - 📖 Husband's Final Indicated Sleep hours. The number of sleep hours allocated (at least the minimum sleep hours). Any incremental hours always come from the third element of the array because in this model sleep is always third priority.
- hFinIndWWT
 - = IF(WageWorkHigherPriorityFor_h, hTimeSupply(FirstPriority) + hMinWWT, hTimeSupply(SecondPriority) + hMinWWT)
 - 📖 Husband's Final Indicated Wage Work Time. The number of wage work hours allocated (at least the minimum wage work hours). Which array element any incremental hours come from depends on the priority of wage work (first or second).
- hIncrAdjDelay
 - = RefIncrAdjDelay
 - 📖 Husband's Increasing Adjustment Delay. The adjustment delay for an indicated increase in the actual domestic work time.

- $hIncrementalDWT$
 $= \text{MAX}(hIndDWT - hMinDWT, 0)$
 Husband's Incremental Domestic Work Time. The number of hours above the minimum that the person would like to perform domestic work each week. It is this value that is requested of the time allocation scheme. (The minimum number of hours are always guaranteed, so it is only the incremental hours that need to be allocated.) This value is not allowed to drop below 0 or mathematically it would reduce the minimum number of hours in the variable Final Indicated Domestic Work Time.
- $hIncrementalSleep$
 $= \text{MAX}(hIdealSleepTime - hMinSleepTime, 0)$
 Husband's Incremental Sleep time. The number of hours above the minimum that the person would like to sleep each week. It is this value that is requested of the time allocation scheme. (The minimum number of hours are always guaranteed, so it is only the incremental hours that need to be allocated.) This value is not allowed to drop below 0 or mathematically it would reduce the minimum number of hours in the variable Final Indicated Sleep Time.
- $hIncrementalWWT$
 $= \text{MAX}(hIndWWT - hMinWWT, 0)$
 Husband's Incremental Wage Work Time. The number of hours above the minimum that the person would like to perform wage work each week. It is this value that is requested of the time allocation scheme. (The minimum number of hours are always guaranteed, so it is only the incremental hours that need to be allocated.) This value is not allowed to drop below 0 or mathematically it would reduce the minimum number of hours in the variable Final Indicated Wage Work Time.
- $hIndDWT$
 $= \text{husbandsADWT} * hPTA_DWT$
 Husband's Time Demands of the Family-Determined Domestic Work Time. The number of hours indicated by the current actual domestic work hours and any pressure to change them (based on meeting or not meeting the time demands of the family). All else being equal, this formulation reinforces the current percentage division of domestic work between the husband and wife because of its dependence on the current value of Actual Domestic Work Time. This fits reality: it's more common to keep doing what you are already doing than to stop. The more you do something, the better you get at it; the better you get at it, the more likely you'll be expected (or it'll be considered more efficient for you) to do it.
- $hIndWWT$
 $= \text{IF}(\text{NOT } hNewJob, \text{husbandsAWWT} * hPTA_WWT, hTDJob)$
 Husband's Indicated Wage Work Time. This variable indicates how many hours the person should perform wage work in the next time step to meet the weekly Time Demands of the Job. When the person has been working for awhile (at least a time step), this variable takes on the value of their Actual Wage Work Time multiplied by the Pressure to Adjust Wage Work Time. If their actual wage work time is adequate, there is no pressure to adjust it, so it stays the same. If actual wage work time is inadequate, there is pressure to increase it. If actual wage work time is more than adequate, there is pressure to decrease it. If the person is unemployed, then there are no actual wage work hours, so this variable takes on the value of 0. If the person has a new job (where the actual wage work time is still 0), then this variable takes on the value of the Time Demands of the Job.
- $hNewJob$
 $= \text{NOT } hRecentlyWorking \text{ AND } hWorkingForWage$
 Husband's New Job. When set to 1, the person has a new job; when set to 0, the person has either been working for awhile or is unemployed.
- $hPotentialDWT$
 $= \text{TimeDemandsOfFamily} - wMinDWT$
 Husband's Potential Domestic Work Time. All domestic work hours but those the wife must do herself for personal care are potentially available for the husband to do.
- $hPromotionOffer$
 $= hWorkingForWage * \text{NOT } hNewJob * \text{TIMEIS}(hLastSeniorityChangeTime + hActualPromotionInterval)$
 Husband's Promotion Offer. Promoted if working and the promotion interval has passed since the last seniority change (or new job).

- hPTA_DWT
 - = $PTAfactor1^{(1-(MIN(AdequacyOfTotalDWTforTDF, AdeqOfhDWTforCAW)^2))}$
 - ☰ Husband's Pressure to Adjust Domestic Work Time. The curve created by this function of Adequacy is a backwards 'S' curve that produces high values when the value of Adequacy is very low (high pressure to increase actual domestic work hours), passes through 1 when Adequacy is adequate (no pressure to adjust actual domestic work hours), and produces values less than 1 when Adequacy is more than adequate (pressure to reduce actual domestic work hours to more accurately reflect the Time Demands of the Family). The MIN function ensures the pressure function stays active until the actual domestic work hours satisfy the requirements of both the time demands of the family and the cultural, personal and wage expectations. This function is different than PTA_WWT: it applies slightly less pressure in the mid-range between 0 and 1, and therefore is not as responsive to inadequacy as PTA_WWT. Originally the equation for PTA_DWT was $1/AdequacyOfDWT$, but this curve was not responsive enough in the mid-range between 0 and 1.
- hPTA_WWT
 - = $PTAfactor2^{(1-(AdeqOfHWWT^3))}$
 - ☰ Husband's Pressure to Adjust Wage Work Time. The curve created by this function of Adequacy is a backwards 'S' curve that produces high values when the value of Adequacy is low (high pressure to increase actual wage work hours), passes through 1 when Adequacy is adequate (no pressure to adjust actual wage work hours), and produces values less than 1 when Adequacy is more than adequate (pressure to reduce actual wage work hours to more accurately reflect the Time Demands of the Job).
- hRecentlyWorking
 - = $DELAYINF(hWorkingForWage, TIMESTEP)$
 - ☰ Husband Recently Working for wage. When set to 1, the person was working in the last timestep; when set to 0, the person was unemployed in the last time step. This variable is used by Husband's New Job to determine if a new job has started (after a time of unemployment), or if the current job is continuing.
- hRelativeWage
 - = $IF(TotalFamilyWage > 0, (hAnnualWages/TotalFamilyWage)*100, 50)$
 - ☰ Husband's Relative Wage. The percentage of the family wage that the husband earns. When the family wage is 0 (neither husband or wife are working), the equation does not work, so the correct value is given directly. (If neither are making an income, they are each responsible for half of that zero income.)
- hRunningTotal
 - ☰ P=Priorities
 - = $hTimeRequest(FirstPriority) \text{ WHEN } P=FirstPriority$
 $BUT hTimeRequest(FirstPriority) + hTimeRequest(SecondPriority) \text{ WHEN } P=SecondPriority$
 $BUT hTimeRequest(FirstPriority) + hTimeRequest(SecondPriority) + hTimeRequest(ThirdPriority) \text{ WHEN } P=ThirdPriority$
 - ☰ Husband's Running Total. This is the third structure of the time allocation scheme. In each array element, this structure contains the running total of Time Request for all its array elements up to and including the one with the same index. For example, if Time Request is [1, 2, 3] then Running Total is [1, 3, 6]. It is used in the structure Time Supply to evaluate which requests can be filled, by comparing the running total(s) with Discretionary Hours.
- hTDJadeq
 - = $IF(hTDJob > 0, \text{husbandsAWWT}/hTDJob, 1)$
 - ☰ Husband's Time Demands of the Job Adequacy. The adequacy of the weekly actual wage work hours compared with the weekly time demands of the job. If the hours are adequate, the variable is equal to 1, if inadequate the variable is less than one, and if more than adequate the variable is greater than 1. If the time demands of the job are 0 (the person is not working), the value of the variable is 1 -- zero time demands of a job can always be met adequately!
- hTDJob
 - = $EffectOfSeniorityOnHTDJob * hWorkingForWage$
 - ☰ Husband's Time Demands of the Job. The number of hours the employer expects the person to work each week, based on their current seniority. This is 0 if the person is not working.

- hTimeRequest
 - ☞ P=Priorities
 - = IF(WageWorkHigherPriorityFor_h, hIncrementalWWT WHEN P=FirstPriority BUT hIncrementalDWT WHEN P=SecondPriority BUT hIncrementalSleep WHEN P=ThirdPriority, hIncrementalDWT WHEN P=FirstPriority BUT hIncrementalWWT WHEN P=SecondPriority BUT hIncrementalSleep WHEN P=ThirdPriority)
 - ☞ Husband's Time Request. This is the second structure of the time allocation scheme. Time requests are entered into this array in priority order based on the variable Wage Work Higher Priority (for the first and second array elements) and the fact that sleep is always considered third priority in this model. The time allocation structure is based on the conceptual description of a resource allocation scheme written by Will Glass-Husain in a 1999 SD Listserv thread.
- hTimeSupply
 - ☞ P=Priorities
 - = IF(hRunningTotal(P) <= hDiscretionaryHours, hTimeRequest(P), hDiscretionaryHours) WHEN P = FirstPriority BUT IF(hRunningTotal(P) <= hDiscretionaryHours, hTimeRequest(P), MAX(hDiscretionaryHours - hRunningTotal(P-1), 0)) WHEN P>FirstPriority
 - ☞ Husband's Time Supply. This is the fourth and final structure in the time allocation scheme. While the equation for the first element of the array is necessarily different, the concept is the same for each element: if the Time Request of that element can be fulfilled completely, it is, otherwise the Time Request is allocated whatever Discretionary Hours are leftover. Here are the details: For the first element, if there are enough discretionary hours to fulfill the first-priority time request, then it is fulfilled. If there are not enough, then the first-priority time request is allocated any discretionary hours. For the second and higher elements of the Time Supply array, if the Running Total of requests up to that element can be met, then that element's time request is fulfilled, otherwise that element is allocated the discretionary hours that are leftover after all previous elements' requests have been fulfilled.
- husbandsLeisureTime_
 - = TotalHoursInWeek - (husbandsAWWT + husbandsADWT + husbandsSleepTime)
 - ☞ Husband's Leisure Time. Husband's left over hours for leisure each week after wage work, domestic work, and sleep.
- hWageDetPercent
 - = 100-hRelativeWage
 - ☞ Husband's Wage-Determined Percent of Domestic Work Time Responsibility. The percentage of hours indicated by the person's relative wage: the lower the relative wage, the higher the percent of domestic work time responsibility. This is based on "the prevailing idea that whoever earns less ... should do more unpaid labor at home" (Okin, p. 154).
- hWorkingForWage
 - = 1 + STEP(-1, 40)
 - ☞ Husband Working for a Wage. Set to 1 means working; set to 0 means unemployed. For the analysis, one case has been chosen: the husband retires at age 65 after working for a wage for 40 years after his marriage.
- hWWTAdjDelay
 - = IF(hFinIndWWT>husbandsAWWT, RefIncrAdjDelay, RefDecrAdjDelay)
 - ☞ Husband's Wage Work Time Adjustment Delay. It takes longer to adjust to an increase in the time spent doing wage work than to a decrease in the time spent. Therefore, if the indicated hours are increasing, the longer Reference Increase Adjustment Delay value is used, otherwise the shorter Reference Decrease Adjustment Delay value is used.
- TimeDemandsOfFamily
 - = 50 + STEP(30, 3) + STEP(20, 5) + STEP(-20, 15) + STEP(-20, 20) + STEP(10, 40)
 - ☞ Time Demands of the Family. Some (objective or perceived) measure of the amount of time required to complete the work needed to meet the demands of the family. These includes childcare, cleaning house, shopping, cooking, planning, decision making, etc. It must be at least as large as the sum of the husband's and wife's minimum domestic work times (h_min_DWT + w_min_DWT).

- TotalDWT
 - = husbandsADWT+wifesADWT
 - 📖 Total Domestic Work Time. Total time the wife and husband spend on domestic work each week.
- TotalFamilyWage
 - = hAnnualWages + wAnnualWages
 - 📖 Total Family Wage. The sum of the husband's and wife's annual wages.
- wActualPromotionInterval
 - = MAX(wMinPromotionInterval, wAdeqDetPromotionInterval)
 - 📖 Wife's Actual Promotion Interval. This equals the Adequacy-Determined Promotion Interval unless it is too short, in which case it equals the Minimum Promotion Interval.
- wAdeqDetPromotionInterval
 - = wStandardPromotionInterval * EffectOfLTAon_wInterval
 - 📖 Wife's Adequacy-Determined Promotion Interval. The time that must pass before a promotion, as determined by the wage work adequacy. It is based on the standard -- the lower the adequacy, the longer the time interval above the standard; the higher the adequacy, the shorter the time interval below the standard.
- wAdjCAWdetDWT
 - = MIN (MAX(wCAWdetDWT, wMinDWT), wPotentialDWT)
 - 📖 Wife's Adjusted Culture, Attitude, and Wage Determined Domestic Work Time. Until now the domestic work time responsibilities have been calculated based on the complete Time Demands of the Family without consideration of realistic constraints. This variable applies the following constraints: this person's domestic work time responsibility cannot be more than the total possible domestic work hours for one person (Potential DWT = Time Demands of the Family - the spouse's Minimum Domestic Work Time) nor can they be less than this person's own Minimum Domestic Work Time.
- wAnnualWages
 - = EffectOfSeniorityOn_wWages*wWorkingForWage
 - 📖 Wife's Annual Wages. Wages are based on seniority level and dependent on the wife working.
- wCAdetPercent
 - = CulturalExpectationFor_w*wWculture+wAttitude*(1-wWculture)
 - 📖 Wife's Culture and Attitude Determined Percent of Domestic Work Time. The Cultural Expectation Percent of Domestic Work Time and the Attitude Percent of Domestic Work Time are summed with weights to determine a combined percent responsibility. The assumption here is that the more weight one places on cultural expectation, the less weight one places on personal belief.
- wCAWdetDWT
 - = wCAWdetPercent*TimeDemandsOfFamily/100
 - 📖 Wife's Culture, Attitude, and Wage Determined Domestic Work Time. This variable translates the persons' domestic work time responsibility from a weekly percentage into weekly hours.
- wCAWdetPercent
 - = (wWageDetPercent*wWwage)+(wCAdetPercent*(1-wWwage))
 - 📖 Wife's Culture, Attitude, and Wage Determined Percent of Domestic Work Time. The Wage-Determined Percent of Domestic Work Time and the Culture and Attitude Determined Percent of Domestic Work Time are summed with weights to determine a combined responsibility. The assumption here is that the more weight one places on relative wages, the less weight one places on cultural expectations and personal belief.
- wDecrAdjDelay
 - = RefDecrAdjDelay
 - 📖 Wife's Decrease Adjustment Delay. The adjustment delay for an indicated decrease in the actual domestic work time.

- **wDemotionIndicator**
 = IF(wWorkingForWage,
 (wLTAadeq <= wInadeqThreshold) AND (TIME >= (wLastSeniorityChangeTime + wDemotionReviewInterval) AND (wCurrentSeniority > 0)),
 (wUnemplTime >= wUnemplInterval) AND FRAC(wUnemplTime/wUnemplInterval) = 0 AND wCurrentSeniority > 0)
 📖 Wife's Demotion Indicator. If set to 1, receives a demotion; if set to 0, there is no demotion. This is a boolean equation: If working for wages, a demotion (loss of a seniority level) is earned by working inadequately for a length of time (measured by Long Term Average Adequacy falling below the inadequacy threshold), but only if it has also been at least a year since the last demotion. If not working, the current seniority (or career assets) depreciates -- to implement this a demotion (loss of a seniority level) is earned for every year unemployed, until the seniority level reaches 0.
- **wDesiredWWT**
 = (wTDJob + wDiscWWT * WageWorkHigherPriorityFor_w)*wWorkingForWage
 📖 Wife's Desired Wage Work Time. This is the desired number of hours to work for wages each week. At a minimum it is the time demands of the job. If wage work is higher priority than domestic work for this spouse, then it also includes the discretionary time targeted for wage work.
- **wDiscretionaryHours**
 = TotalHoursInWeek - (wMinWWT + wMinDWT + wMinSleepTime)
 📖 Wife's Discretionary Hours. These are the hours each week, above and beyond the minimum requirements, that can be allocated between wage work, domestic work, sleep, and leisure.
- **wDWT_AdjDelay**
 = IF(wFinIndDWT > wifesADWT, wIncrAdjDelay, wDecrAdjDelay)
 📖 Wife's Domestic Work Time Adjustment Delay. It takes longer to adjust to an increase in the time spent doing domestic work than to a decrease in the time spent. Additionally, if cultural expectations and personal beliefs don't support one's performance of domestic work, in addition to a slower ramp up, one will be actively resistant to an increase. If cultural expectations and personal beliefs do support one's performance of domestic work, then there will be no added resistance. Therefore, if the indicated hours are increasing, the longer Increase and Resistance Adjustment Delay value is used, otherwise the shorter Decrease Adjustment Delay value is used.
- **wDWTpercentage**
 = (wifesADWT/TotalDWT)*100
 📖 Wife's Domestic Work Time Percentage. The percentage of the total domestic work time that the wife works.
- **wFinIndDWT**
 = IF(WageWorkHigherPriorityFor_w,
 wTimeSupply(SecondPriority) + wMinDWT,
 wTimeSupply(FirstPriority) + wMinDWT)
 📖 Wife's Final Indicated Domestic Work Time. The number of domestic work hours allocated (at least the minimum domestic work hours). Which array element any incremental hours come from depends on the priority of domestic work (first or second).
- **wFinIndSleep**
 = wTimeSupply(ThirdPriority) + wMinSleepTime
 📖 Wife's Final Indicated Sleep hours. The number of sleep hours allocated (at least the minimum sleep hours). Any incremental hours always come from the third element of the array because in this model sleep is always third priority.
- **wFinIndWWT**
 = IF(WageWorkHigherPriorityFor_w,
 wTimeSupply(FirstPriority) + wMinWWT,
 wTimeSupply(SecondPriority) + wMinWWT)
 📖 Wife's Final Indicated Wage Work Time. The number of wage work hours allocated (at least the minimum wage work hours). Which array element any incremental hours come from depends on the priority of wage work (first or second).
- **wifesLeisureTime_**
 = TotalHoursInWeek - (wifesAWWT + wifesADWT + wifesSleepTime)
 📖 Wife's Leisure Time. Wife's left over hours for leisure each week after wage work, domestic work, and sleep.

- $wIncrAdjDelay$
 = $RefIncrAdjDelay$
 📖 Wife's Increasing Adjustment Delay. The adjustment delay for an indicated increase in the actual domestic work time.
- $wIncrementalDWT$
 = $MAX(wIndDWT - wMinDWT, 0)$
 📖 Wife's Incremental Domestic Work Time. The number of hours above the minimum that the person would like to perform domestic work each week. It is this value that is requested of the time allocation scheme. (The minimum number of hours are always guaranteed, so it is only the incremental hours that need to be allocated.) This value is not allowed to drop below 0 or mathematically it would reduce the minimum number of hours in the variable Final Indicated Domestic Work Time.
- $wIncrementalSleep$
 = $MAX(wIdealSleepTime - wMinSleepTime, 0)$
 📖 Wife's Incremental Sleep time. The number of hours above the minimum that the person would like to sleep each week. It is this value that is requested of the time allocation scheme. (The minimum number of hours are always guaranteed, so it is only the incremental hours that need to be allocated.) This value is not allowed to drop below 0 or mathematically it would reduce the minimum number of hours in the variable Final Indicated Sleep Time.
- $wIncrementalWWT$
 = $MAX(wIndWWT - wMinWWT, 0)$
 📖 Wife's Incremental Wage Work Time. The number of hours above the minimum that the person would like to perform wage work each week. It is this value that is requested of the time allocation scheme. (The minimum number of hours are always guaranteed, so it is only the incremental hours that need to be allocated.) This value is not allowed to drop below 0 or mathematically it would reduce the minimum number of hours in the variable Final Indicated Wage Work Time.
- $wIndDWT$
 = $wifesADWT * wPTA_DWT$
 📖 Wife's Time Demands of the Family-Determined Domestic Work Time. The number of hours indicated by the current actual domestic work hours and any pressure to change them (based on meeting or not meeting the time demands of the family). All else being equal, this formulation reinforces the current percentage division of domestic work between the husband and wife because of its dependence on the current value of Actual Domestic Work Time. This fits reality: it's more common to keep doing what you are already doing than to stop. The more you do something, the better you get at it; the better you get at it, the more likely you'll be expected (or it'll be considered more efficient for you) to do it.
- $wIndWWT$
 = $IF(NOT wNewJob, wifesAWWT * wPTA_WWT, wTDJob)$
 📖 Wife's Indicated Wage Work Time. This variable indicates how many hours the person should perform wage work in the next time step to meet the weekly Time Demands of the Job. When the person has been working for awhile (at least a time step), this variable takes on the value of their Actual Wage Work Time multiplied by the Pressure to Adjust Wage Work Time. If their actual wage work time is adequate, there is no pressure to adjust it, so it stays the same. If actual wage work time is inadequate, there is pressure to increase it. If actual wage work time is more than adequate, there is pressure to decrease it. If the person is unemployed, then there are no actual wage work hours, so this variable takes on the value of 0. If the person has a new job (where the actual wage work time is still 0), then this variable takes on the value of the Time Demands of the Job.
- $wNewJob$
 = $NOT wRecentlyWorking AND wWorkingForWage$
 📖 Wife's New Job. When set to 1, the person has a new job; when set to 0, the person has either been working for awhile or is unemployed.
- $wPotentialDWT$
 = $TimeDemandsOfFamily - hMinDWT$
 📖 Wife's Potential Domestic Work Time. All domestic work hours but those the husband must do himself for personal care are potentially available for the wife to do.
- $wPromotionOffer$
 = $wWorkingForWage * NOT wNewJob * TIMEIS(wLastSeniorityChangeTime + wActualPromotionInterval)$
 📖 Wife's Promotion Offer. Promoted if working and the promotion interval has passed since the last seniority change (or new job).

- wPTA_DWT
 - = $PTAfactor1^{(1-(\text{MIN}(\text{AdequacyOfTotalDWTforTDF}, \text{AdeqOfwDWTforCAW})^2))}$
 - ☰ Wife's Pressure to Adjust Domestic Work Time. The curve created by this function of Adequacy is a backwards 'S' curve that produces high values when the value of Adequacy is very low (high pressure to increase actual domestic work hours), passes through 1 when Adequacy is adequate (no pressure to adjust actual domestic work hours), and produces values less than 1 when Adequacy is more than adequate (pressure to reduce actual domestic work hours to more accurately reflect the Time Demands of the Family). The MIN function ensures the pressure function stays active until the actual domestic work hours satisfy the requirements of both the time demands of the family and the cultural, personal and wage expectations. This function is different than PTA_WWT: it applies slightly less pressure in the mid-range between 0 and 1, and therefore is not as responsive to inadequacy as PTA_WWT. Originally the equation for PTA_DWT was $1/\text{AdequacyOfDWT}$, but this curve was not responsive enough in the mid-range between 0 and 1.
- wPTA_WWT
 - = $PTAfactor2^{(1-(\text{AdeqOfWWWT})^3)}$
 - ☰ Wife's Pressure to Adjust Wage Work Time. The curve created by this function of Adequacy is a backwards 'S' curve that produces high values when the value of Adequacy is low (high pressure to increase actual wage work hours), passes through 1 when Adequacy is adequate (no pressure to adjust actual wage work hours), and produces values less than 1 when Adequacy is more than adequate (pressure to reduce actual wage work hours to more accurately reflect the Time Demands of the Job).
- wRecentlyWorking
 - = $\text{DELAYINF}(\text{wWorkingForWage}, \text{TIMESTEP})$
 - ☰ Wife Recently Working for wage. When set to 1, the person was working in the last timestep; when set to 0, the person was unemployed in the last time step. This variable is used by Wife's New Job to determine if a new job has started (after a time of unemployment), or if the current job is continuing.
- wRelativeWage
 - = $\text{IF}(\text{TotalFamilyWage} > 0, (\text{wAnnualWages}/\text{TotalFamilyWage}) * 100, 50)$
 - ☰ Wife's Relative Wage. The percentage of the family wage that the wife earns. When the family wage is 0 (neither husband or wife are working), the equation does not work, so the correct value is given directly. (If neither are making an income, they are each responsible for half of that zero income.)
- wRunningTotal
 - ☰ P=Priorities
 - = $\text{wTimeRequest}(\text{FirstPriority})$ WHEN $P=\text{FirstPriority}$
 BUT $\text{wTimeRequest}(\text{FirstPriority}) + \text{wTimeRequest}(\text{SecondPriority})$ WHEN $P=\text{SecondPriority}$
 BUT $\text{wTimeRequest}(\text{FirstPriority}) + \text{wTimeRequest}(\text{SecondPriority}) + \text{wTimeRequest}(\text{ThirdPriority})$ WHEN $P=\text{ThirdPriority}$
 - ☰ Wife's Running Total. This is the third structure of the time allocation scheme. In each array element, this structure contains the running total of Time Request for all its array elements up to and including the one with the same index. For example, if Time Request is [1, 2, 3] then Running Total is [1, 3, 6]. It is used in the structure Time Supply to evaluate which requests can be filled, by comparing the running total(s) with Discretionary Hours.
- wTDJadeq
 - = $\text{IF}(\text{wTDJob} > 0, \text{wifesAWWT}/\text{wTDJob}, 1)$
 - ☰ Wife's Time Demands of the Job Adequacy. The adequacy of the weekly actual wage work hours compared with the weekly time demands of the job. If the hours are adequate, the variable is equal to 1, if inadequate the variable is less than one, and if more than adequate the variable is greater than 1. If the time demands of the job are 0 (the person is not working), the value of the variable is 1 -- zero time demands of a job can always be met adequately!
- wTDJob
 - = $\text{EffectOfSeniorityOnWTDJob} * \text{wWorkingForWage}$
 - ☰ Wife's Time Demands of the Job. The number of hours the employer expects the person to work each week, based on their current seniority. This is 0 if the person is not working.

- wTimeRequest
 - ☰ P=Priorities
 - = IF(WageWorkHigherPriorityFor_w, wIncrementalWWT WHEN P=FirstPriority BUT wIncrementalDWT WHEN P=SecondPriority BUT wIncrementalSleep WHEN P=ThirdPriority, wIncrementalDWT WHEN P=FirstPriority BUT wIncrementalWWT WHEN P=SecondPriority BUT wIncrementalSleep WHEN P=ThirdPriority)
 - ☰ Wife's Time Request. This is the second structure of the time allocation scheme. Time requests are entered into this array in priority order based on the variable Wage Work Higher Priority (for the first and second array elements) and the fact that sleep is always considered third priority in this model . The time allocation structure is based on the conceptual description of a resource allocation scheme written by Will Glass-Husain in a 1999 SD Listserv thread.
- wTimeSupply
 - ☰ P=Priorities
 - = IF(wRunningTotal(P) <= wDiscretionaryHours, wTimeRequest(P), wDiscretionaryHours) WHEN P = FirstPriority BUT IF(wRunningTotal(P) <= wDiscretionaryHours, wTimeRequest(P), MAX(wDiscretionaryHours - wRunningTotal(P-1), 0)) WHEN P>FirstPriority
 - ☰ Wife's Time Supply. This is the fourth and final structure in the time allocation scheme. While the equation for the first element of the array is necessarily different, the concept is the same for each element: if the Time Request of that element can be fulfilled completely, it is, otherwise the Time Request is allocated whatever Discretionary Hours are leftover. Here are the details: For the first element, if there are enough discretionary hours to fulfill the first-priority time request, then it is fulfilled. If there are not enough, then the first-priority time request is allocated any discretionary hours. For the second and higher elements of the Time Supply array, if the Running Total of requests up to that element can be met, then that element's time request is fulfilled, otherwise that element is allocated the discretionary hours that are leftover after all previous elements' requests have been fulfilled.
- wWageDetPercent
 - = 100-wRelativeWage
 - ☰ Wife's Wage-Determined Percent of Domestic Work Time Responsibility. The percentage of hours indicated by the person's relative wage: the lower the relative wage, the higher the percent of domestic work time responsibility. This is based on "the prevailing idea that whoever earns less ... should do more unpaid labor at home" (Okin, p. 154).
- wWorkingForWage
 - = IF(AnalysisCaseNumber=1, Case1, IF(AnalysisCaseNumber=2, Case2, Case3))
 - ☰ Wife Working for a Wage. Set to 1 means working; set to 0 means unemployed. For the analysis, there are three possible cases, set at the beginning of the simulation through the variable Analysis Case Number:
 - 1) The wife works for a wage continuously for 40 years after her marriage, then retires at age 65.
 - 2) The wife works for a wage for 5 years after her marriage, takes 5 years off to care for children, then reenters the workforce and works until she retires at age 65.
 - 3) The same as case 2, except she takes 10 years off to care for children.
- wWWTAdjDelay
 - = IF(wFinIndWWT>wifesAWWT, RefIncrAdjDelay, RefDecrAdjDelay)
 - ☰ Wife's Wage Work Time Adjustment Delay. It takes longer to adjust to an increase in the time spent doing wage work than to a decrease in the time spent. Therefore, if the indicated hours are increasing, the longer Reference Increase Adjustment Delay value is used, otherwise the shorter Reference Decrease Adjustment Delay value is used.
- ◇ AnalysisCaseNumber
 - = 1

- ◇ CulturalExpectationFor_h
= 30
 - 📖 Cultural Expectation for the Husband. The cultural expectation about what percentage of the domestic work time one's gender should do. This is interdependent with the Cultural Expectation for the Wife, as our culture creates expectations about what both husband and wife should do at the same time.
- ◇ hAttitude
= 50
 - 📖 Husband's Attitude. The personal belief about what percentage of the domestic work time one should do. This is independent of what the spouse believes she should do.
- ◇ hDemotionReviewInterval
= 1
 - 📖 Husband's Demotion Review Interval. This regulates demotions when working for wages. A demotion can be given one year after a previous review. One year allows the employee enough time to improve performance while also allowing the employer to deal with poor performance in a timely manner.
- ◇ hDiscWWT
= 5
 - 📖 Husband's Discretionary Wage Work Time. The extra hours the husband will work each week, above and beyond the time demands of the job, if wage work is a higher priority than domestic work for him.
- ◇ hIdealSleepTime
= 56
 - 📖 Husband's Ideal Sleep Time. The ideal is 8 hours per night: $8 * 7 = 56$.
- ◇ hInadeqThreshold
= 0.9
 - 📖 Husband's Inadequacy Threshold. The value that long-term average adequacy must fall at or below to earn a demotion when working for wages.
- ◇ hInitSeniority
= 5
 - 📖 Husband's Initial Seniority. Husband's job seniority at the start of the marriage.
- ◇ hLTAdelay
= 0.5
 - 📖 Husband's Long-Term Average adequacy Delay. This is the time period over which the adequacy of the wage work hours are tracked -- in this case, 6 months.
- ◇ hMinDWT
= 16.6
 - 📖 Husband's Minimum Domestic Work Time. The minimum number of hours a person requires each week to meet their most basic needs of meal preparation and consumption, laundry, and personal hygiene. From one research study this was 16.6 hours per week.
- ◇ hMinPromotionInterval
= 3
 - 📖 Husband's Minimum Promotion Interval. The minimum amount of time that must pass before the employer will promote to the next seniority level.
- ◇ hMinSleepTime
= 42
 - 📖 Husband's Minimum Sleep Time. The minimum number of hours a person requires for sleep each week. This is estimated at 6 hours per night: $6 * 7 = 42$.

- ◇ hMinWWT
= 10
 - 📖 Husband's Minimum Wage Work Time. When employed, the minimum number of hours a person performs wage work each week. This specific value of 10 was chosen to allow for flexibility in the actual number of hours worked each week -- both to support part time work and to allow for large domestic work demands.
- ◇ hStandardPromotionInterval
= 5
 - 📖 Husband's Standard Promotion Interval. The amount of time the employer advertises must pass to be promoted to the next seniority level.
- ◇ hUnemplInterval
= 1
 - 📖 Husband's Unemployment Interval. This regulates the depreciation of career assets when not working. For every year unemployed, a seniority level is lost.
- ◇ hWculture
= 0.5
 - 📖 Husband's Weight on Culture. The weight placed on cultural expectations when determining percent of domestic work time responsibility.
- ◇ hWwage
= 0.5
 - 📖 Husband's Weight on Wage. The weight placed on relative wages when determining percent of domestic work time responsibility.
- ◇ PTAfactor1
= 10
 - 📖 Pressure to Adjust Factor 1. A number chosen to create the desired curve for Pressure to Adjust Domestic Work Time.
- ◇ PTAfactor2
= 10
 - 📖 Pressure to Adjust Factor. A number chosen to create the desired curve for Pressure to Adjust Wage Work Time.
- ◇ RefDecrAdjDelay
= 0.02
 - 📖 Reference Decrease Adjustment Delay. While adjusting to a new habit or time commitment might take an average of three weeks, dropping a habit or commitment takes much less time. 0.02 represents one week when 1 unit is one year.
- ◇ RefIncrAdjDelay
= 0.06
 - 📖 Reference Increase Adjustment Delay. It is commonly understood that it takes an average of three weeks to develop a new habit, or adjust to a new time commitment. 0.06 represents three weeks when 1 unit is one year.
- ◇ TotalHoursInWeek
= 168
 - 📖 Total Hours in a Week. Total hours in a week is $7 * 24 = 168$.
- ◇ WageWorkHigherPriorityFor_h
= 1
 - 📖 Wage Work Higher Priority For Husband. This is the first structure of the time allocation scheme. If this variable is set to 1, then wage work is first priority. If it is set to 0, then domestic work is first priority. In this model, the husband and wife either prioritize wage work first or domestic work first. If wage work is first, then domestic work is second. If domestic work is first, then wage work is second. Sleep is always third, and leisure is always fourth (last). Leisure is not included in the time allocation scheme, because it is given whatever hours are leftover. In Will Glass-Husain's conceptual description (referred to in the variable description for Time Supply), this could be a priority array.

- ◇ WageWorkHigherPriorityFor_w
= 1
☰ Wage Work Higher Priority For Wife. This is the first structure of the time allocation scheme. If this variable is set to 1, then wage work is first priority. If it is set to 0, then domestic work is first priority. In this model, the husband and wife either prioritize wage work first or domestic work first. If wage work is first, then domestic work is second. If domestic work is first, then wage work is second. Sleep is always third, and leisure is always fourth (last). Leisure is not included in the time allocation scheme, because it is given whatever hours are leftover. In Will Glass-Husain's conceptual description (referred to in the variable description for Time Supply), this could be a priority array.
- ◇ wAttitude
= 50
☰ Wife's Attitude. The personal belief about what percentage of the domestic work time one should do. This is independent of what the spouse believes he should do.
- ◇ wDemotionReviewInterval
= 1
☰ Wife's Demotion Review Interval. This regulates demotions when working for wages. A demotion can be given one year after a previous review. One year allows the employee enough time to improve performance while also allowing the employer to deal with poor performance in a timely manner.
- ◇ wDiscWWT
= 5
☰ Wife's Discretionary Wage Work Time. The extra hours the wife will work each week, above and beyond the time demands of the job, if wage work is a higher priority than domestic work for her.
- ◇ wIdealSleepTime
= 56
☰ Wife's Ideal Sleep Time. The ideal is 8 hours per night: $8 * 7 = 56$.
- ◇ wInadeqThreshold
= 0.9
☰ Wife's Inadequacy Threshold. The value that long-term average adequacy must fall at or below to earn a demotion when working for wages.
- ◇ wInitSeniority
= 5
☰ Wife's Initial Seniority. Wife's job seniority at the start of the marriage.
- ◇ wLTAdelay
= 0.5
☰ Husband's Long-Term Average adequacy Delay. This is the time period over which the adequacy of the wage work hours are tracked -- in this case, 6 months.
- ◇ wMinDWT
= 16.6
☰ Wife's Minimum Domestic Work Time. The minimum number of hours a person requires each week to meet their most basic needs of meal preparation and consumption, laundry, and personal hygiene. From one research study this was 16.6 hours per week.
- ◇ wMinPromotionInterval
= 3
☰ Wife's Minimum Promotion Interval. The minimum amount of time that must pass before the employer will promote to the next seniority level.
- ◇ wMinSleepTime
= 42
☰ Wife's Minimum Sleep Time. The minimum number of hours a person requires for sleep each week. This is estimated at 6 hours per night: $6 * 7 = 42$.

- ◇ wMinWWT
= 10
☰ Wife's Minimum Wage Work Time. When employed, the minimum number of hours a person performs wage work each week. This specific value of 10 was chosen to allow for flexibility in the actual number of hours worked each week -- both to support part time work and to allow for large domestic work demands.
- ◇ wStandardPromotionInterval
= 5
☰ Wife's Standard Promotion Interval. The amount of time the employer advertises must pass to be promoted to the next seniority level.
- ◇ wUnemplInterval
= 1
☰ Wife's Unemployment Interval. This regulates the depreciation of career assets when not working. For every year unemployed, a seniority level is lost.
- ◇ wWculture
= 0.5
☰ Wife's Weight on Culture. The weight placed on cultural expectations when determining percent of domestic work time responsibility.
- ◇ wWwage
= 0.5
☰ Wife's Weight on Wage. The weight placed on relative wages when determining percent of domestic work time responsibility.