

## HARVARD OR YALE? — COLLEGE COST FORECASTER

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**HOW TO USE THIS DOCUMENT**— This document contains all of the information you need to get going with HARVARD OR YALE?. Please scroll down and review all of the information before opening the HARVARD OR YALE? folder and launching the application. We urge you to register the program with us—information on registration is given in the next paragraph.

REGISTRATION— We are software developers and depend on registrations and sales to produce software like HARVARD OR YALE?. The registration fee for this software is \$19.95 which entitles you to use the program on a permanent basis. We believe that after you try this application, you will agree that it is well worth the registration fee. Registration will also entitle you to technical support and notices of future upgrades and updates.

The college database on this disk has costs for the 1990-91 school year and will serve as a demonstration of the capabilities of HARVARD OR YALE?. To get the current version with college costs that are applicable now, you will need to register the program. Please send your check for \$19.95 (made out to David E. Allan) along with your name and address to the address in the letterhead and we will register you as a HARVARD OR YALE? owner. Once we receive your check, we will mail you a version containing the latest college cost database. Additionally, you will be on our mailing list for future upgrades and updates.

WHAT IS HARVARD OR YALE? AND WHAT DOES IT DO?— HARVARD OR YALE? is a tool for helping you look at college costs and to decide how much you need to start saving now to meet your future goals. For example, it can help you forecast college costs 15 years in the future or look at your obligations for a student starting school next year. An up-to-date database of over 650 four year colleges and universities (there are 690 schools in the database to be exact) allows the user to make a variety of comparisons that will yield a plan to meet their budget.

Simply put, this program carries out the following steps to estimate college costs:

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First, the user inputs data on the prospective student, financial situation, estimate of inflation and rate of return on college savings. The user should also consider special factors that might influence costs and review the defaults for items like transportation costs, books and supplies and personal expenses.

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Next, the user selects a college or university from a database of over 650 schools. The database contains complete cost data taken from a variety of up-to-date, well known sources. The database contains cost data on nearly every four year college or university in the USA with over a 1000 students.

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The calculation for the amount of funds required to meet the goal is an iterative or trial and error procedure. Depending on the base costs of the school selected, HARVARD OR YALE? selects a trial value for the savings rate and then performs a year by year cash flow estimate. Each year (prior to the start of the college period), money is saved and taxes (on the earnings) are paid. During the college years, saving is continued but now funds are spent from savings. At the end of the college period, the amount of money remaining is examined — if it is within a small tolerance, the assumed savings rate is the correct one and the calculation is terminated. If not, the savings rate is adjusted and the calculation begins again. Usually, HARVARD OR YALE? converges with 7 or 8 iterations.

o After the calculation converges, the user has the amount that must be saved on a monthly basis to meet the costs for that school and the assumed financial parameters (the dollar amount that must be saved is constant— escalation for inflation has already been taken into account in calculating the monthly savings number). HARVARD OR YALE? has options for viewing the costs graphically and presents a table showing a total cost recap.

WHAT EQUIPMENT AND SOFTWARE DO I NEED TO USE HARVARD OR YALE? — HARVARD OR YALE? runs under EXCEL™ — but you do not need to know anything about EXCEL™ to successfully use the application. To run HARVARD OR YALE? you will need the following hardware and software:

- o A Macintosh computer (Plus, Classic, SE, SE-30, II, IIx, IICx, IICi, IIfx, IIsi, IILC, or Portable)
- o Microsoft EXCEL™ 2.2 (this application will also run with the new EXCEL v3.0. Please read the discussion later in this writeup about using the program with v3.0 or v4.0).

#### READ THIS IF YOU READ NOTHING ELSE

- o Keep a spare copy of your application on a floppy disk — likewise, also keep a spare copy on the hard disk as well.
- o Use the custom menu bar for navigation — all of the sheets are linked and use of the close box will get you in trouble rather quickly.
- o Use hot keys for speed.
- o Never launch the application with EXCEL™ open — EXCEL™ should be shut down to do the launch since the program auto-opens EXCEL™ when you double-click on the startup file (College\_EP\_OPEN ME).
- o Never use the close box on any of the files—as mentioned above, use the menu commands for navigation.
- o Don't change any of the formatting on any of the standard screens — some of the formatting is used as position indicators (and for other reasons).

START-UP AND FIRST TIME USE — Your disk contains a folder which is titled HARVARD OR YALE?. Before doing anything else — please copy that folder to your hard disk and keep the floppy for safe-keeping. The first step is to double-click on the folder and you will see three EXCEL™ files. Making sure EXCEL™ is closed down — double click on the file titled College\_EP\_OPEN ME. The program has auto-loading of EXCEL™ and all files— this launch



will load everything you need to work with the program. During the loading, you will encounter a dialog box. This box is the welcome screen — click on OK after you have read the information in the box.

The main screen is the starting-point for all activities and contains some summarized instructions and a review of the Hot-Key commands (scroll down if necessary to view all of the commands). All of the commands are accessible either via Hot-Keys or on the custom menu Bar. Before selecting a college and starting the calculation, you need to fill in the data in the bordered table. Although the data in the table is fairly self-explanatory, each of the input parameters is reviewed below (please note that the input parameters with a check mark must have data entered or the calculation cannot proceed):

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Current Savings For College — enter the amount of money that you have saved to this point for the student's education.

o Student's Current Age ✓ — enter the age of the student who you are making the estimate for. The allowable age range is between 1 and 18 years.

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Projected Inflation Rate ✓ — enter your estimate of the average inflation rate during the estimate period (be sure to enter this and other percentage values as the decimal equivalents — for example, a 7% inflation rate would be entered as 0.07).

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Your Marginal Tax Rate ✓ — enter your marginal Federal income tax rate. This rate will probably be 28 or 31% for most people (for a more detailed explanation of how the application handles taxes—see the section on this subject below).

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Estimated Return On College Savings ✓ — enter your estimate of the average return you think you can achieve while saving for college. If you are planning to save using a money market fund or account, you may want to assume a fairly modest rate of return—say 6-7%. However if your experience tells you that on the average you can earn 8-9% annually trading in the bond or stock market — you should enter a return in this range.

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Estimated % Financial Aid — enter your estimate (as a percentage) of how you think financial aid will meet the student's expenses (HARVARD OR YALE? does not include transportation or sorority/fraternity costs in applying the financial aid factor).

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Student Will Be In State? (In=0, Out=1) — enter the appropriate number depending on whether the student will be in state or out of state for the school(s) chosen. Since some schools use a different fee structure depending on the state of residence for the student, this information is needed to use the correct data for the tuition.

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Sorority/ Fraternity (No=0, Yes=1) — enter the appropriate number depending on whether the student will be a member of a fraternity or a sorority (see defaults for assumed costs).

o

Student Lives at Home? (No=0, Yes=1) — in some cases, a student may be able to live at home and attend the school of their choice. Enter the number which represents the correct situation for your case. If ‘No’ is chosen the room and board costs for the school chosen will be used. If ‘Yes’ is chosen, a default value is used which represents a cost for living at home (if the student does live at home— the user should review the default value and change it if necessary).

As mentioned previously, be sure to fill in the data in the four checked boxes — the calculation cannot proceed without these data (and the application will not let you proceed without these data). Also, prior to selecting a college, it is a good idea to review the information on the defaults and assumptions (found under OTHER on the custom menu bar).

That is really all there is to setting up the program to run a case. You are now ready to start looking at actual college costs for your situation. To select a college, choose SELECT COLLEGE from the SELECTION option on the menu bar and a dialog box will come up with a list box of all of the colleges in database. Simply pick the desired school, click on OK and the calculation will start. The user should note that since the list of colleges is long, a lot of time can be saved during the selection by choosing the first letter of the college name from the keyboard —if this is done, the program will take the user to near the correct place in the list.

Although the primary result in the calculation is the amount of money that must be saved per month to meet the desired goals — HARVARD OR YALE? gives a lot more information. Various options for viewing the summarized information are found under the SUMMARIES option on the main menu bar and are reviewed on the main screen (and summarized in the section on commands). The user will likely want to look at a variety of schools and make some more calculations to see the effect of interest and inflation rates on the final costs.

After you are finished working with HARVARD OR YALE? and wish to quit, just choose QUIT AND SAVE under the FILES menu on the menu bar.

**A WORD ON COLLEGE COSTS AND THE DEFAULTS** — It may be helpful at this point to review some of the components of college costs and consider which are fixed and which of these you have some control over. The fixed costs are those set by the school and there is nothing you can do to economize on these except obtain financial aid. These are the costs like tuition, room&board and fees. There are, however, several costs over which you can exert some control. These include costs like transportation, sorority and fraternity costs and personal expenses. Even for costs that are unavoidable (like books and supplies)— it is impossible to fix a number that will fit every situation. Accordingly, HARVARD OR YALE? has a command which allows the user to view and change the default values for several of these items. Even though the application has default values built in that will be good for most cases — the user may want to

change some of these items to more closely reflect their situation.

In addition to the defaults mentioned above, there is one additional default and that is the student's tax rate. The discussion of this default is discussed in the section below.

**HOW ARE TAXES HANDLED?**— Money that is earned on your college savings must be taxed and HARVARD OR YALE? assumes a tiered tax structure when taxing the earnings from college savings. First of all, the program assumes that you will take maximum advantage of the tax rate advantages available in this kind of situation. Therefore, HARVARD OR YALE? assumes that you will set up accounts such that the first \$1000 in income from school savings can be taxed at the prospective student's rate (the application assumes that the default rate for each prospective student is 15%). Income beyond \$1000 is taxed at your marginal income tax rate.

There are a couple of special situations on taxes that are worth special mention here. First, let us assume that for some reason you decide not to set up a special account for your prospective student. In this case all of the income earned on college savings will be taxed at your marginal rate and you should enter your marginal rate in the slot for the Student Tax Rate in the default section. Let us now assume another situation in which you are able to accumulate funds for college on a tax free basis. In this case you would enter zero for the Student Tax Rate in the default section and a number essentially equivalent to zero for your Marginal Tax Rate on the main screen (say 0.1 or 0.01%). The reader may wonder why they cannot enter zero for the marginal tax rate on the main screen. For most users the marginal rate will be a positive number like 28 or 31%. For this reason, the program checks several of the input variables (including this one) to make sure that the user has not unintentionally left it blank. In order to circumvent the error message for a blank or zero cell, you should insert a very small number (like 0.1 or 0.01%) in order to bypass the error messages. Values this small have a negligible effect on taxes but will circumvent the error routines.

**SOME MISCELLANEOUS ITEMS** — This section will cover (or re-cover) some items that the user should pay attention to. First, let us say a few words about college names. Since there are 690 colleges in the database, I have tried to be consistent in use of the names to make finding the desired selection as painless as possible. Usually, the full name of the schools are used. For example, we use Massachusetts Institute of Technology (not MIT) and California Institute of Technology (not Cal Tech). Secondly, there are a lot of state schools that start with the name University of... In order not to have 200 items starting with U—the state name is listed first. Additionally, since many of the state schools have more than one location, the name of the location is often given in the name. For example, the University of Wisconsin (Madison campus) is listed in selection dialog box as Wisconsin, University of at Madison. Although not many, there are a couple of exceptions to the naming conventions for abbreviations that have become standard usage. For example, instead of State University of New York at ... and City University of New York at... — HARVARD OR YALE? uses the names SUNY—... and CUNY—... One final item with respect to selecting a college or university from the selection dialog box list deserves mention again. Since the list is so long, scrolling to find the school can be a long process (particularly if it is near the end of the alphabet). It is much faster to type the first letter

(or two) of the school name and then use scrolling to find the exact school.

99% of the schools in the database have housing available and HARVARD OR YALE? carries the appropriate room and board costs. However, there are a few schools (7 to be exact) that needed to be in the database but have no housing available. These schools are listed below:

Colorado, University of at Denver  
Colorado, University of at Colorado Springs  
CUNY—Brooklyn College  
CUNY—City College  
CUNY—Lehman College  
CUNY—Queens College  
CUNY—Staten Island College

If you do an estimate for one of the colleges on this short list, make sure that you enter your estimate for the room and board. The easiest way to do this is to select the Living at Home option on the main screen and then adjust the living at home option accordingly (regardless of whether the student will actually live at home or not).

A NOTE FOR USERS OF EXCEL™ V3.0 or later — Since EXCEL™v3.0 or v4.0 files are not backwards compatible with v2.2, the files you have on the floppy were saved from v2.2. We have used this application with v3.0 and v4.0 and it works just fine but there are a couple of things that the user should be aware of. The first time that you load the application with v3.0 or v4.0 everything will proceed normally until you want to quit. With EXCEL™2.2, once you choose Quit And Save, everything is saved, EXCEL™ is put away and that is all there is to it. The first time you leave v3.0 or v4.0, the program will query you on several things including saving all of the files. Just choose SAVE and REPLACE for each of the files and everything will get saved. Once these files are converted to v3.0 or v4.0 format, these questions will not be asked during further sessions with the program.

HARVARD OR YALE ? COMMANDS —the commands for the application are listed on the next page along with some comments on each. The user should note that all commands can be found under the various sections of the main menu bar (or can be accessed via the various Hot-Keys):

#### MENU BAR SECTION — FILES

Quit And Save (Command-q)— Saves all current copies of the files and leaves EXCEL™.

#### MENU BAR SECTION — SELECTION

Select College... (Command-s)— Brings up a Dialog Box for college selection.

Return To Main Screen (Command-m)— Navigation command which brings the user to the main screen from anywhere in the application.

## MENU BAR SECTION — SUMMARIES

Features (Command-f)— Brings up a Dialog Box giving the features of the program.

Cash Flow Chart (Command-c)— Shows a chart with the year by year cash flow as calculated by the application.

Cash Recap (Command-r)— Brings up table which shows the cash summaries for the case selected (this table also shows the name of the school and the school location).

## MENU BAR SECTION — OTHER

View Database (Command-v)— Brings up a screen so the user can view the individual data in the college database.

View or Change Defaults (Command-d)— Brings up a table showing the default values — the user can use this screen to change any of the defaults.

Look At Assumptions (Command-a)— Brings up a screen which lists the assumptions in the calculation.

Get EXCEL™ (Command-x)— Brings up the EXCEL™ menu bar — to get back to the HARVARD OR YALE? menu bar, the user should use Option + Command-b. NOTE — this command cannot be used when viewing the trend chart.





Have Fun!





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