Through an agreement between the UW System and the Wisconsin Department of Workforce Development we were able to match 5 graduating classes (bachelors degree recipients from 1979, 1984, 1989, 1994 and 1999) with the state’s unemployment insurance file and a series of other data bases in order to determine where UW graduates are working and living and to determine how much they are earning.

Unemployment insurance covers approximately 92% of the non-farm labor force. The other 8 percent consists of self employed individuals and workers in firms with 10 or fewer employees. The percent of UW graduates in non-covered employment might be even larger than 8 percent. For example, some of the UW’s most august graduates, including some seated around this table are self employed professionals.

Although we are only beginning to analyze this rich source of information about our graduates, we felt it appropriate to report preliminary results so as to dispel myths and confirm reality about the impact of a UW education on the State and its citizens at a time when the Legislature is debating the level at which it should support public higher education.
• In recent years there have been numerous articles in newspapers and magazines regarding the so-called “brain drain” problem facing Wisconsin. Some of these reports asserted that Wisconsin college graduates were leaving the state in droves after graduation—this is a misconception.

• 82% of UW graduates from the 1999-00 graduating class, who were Wisconsin residents when they were students, were working and/or living in Wisconsin a year and one-half after graduation.

• Of these:

  74 percent were working in covered employment
  8 percent were either working in non-covered employment or living in WI and out of the labor force

• 27 of Minnesota reciprocity students and 24 percent of non-residents remained in Wisconsin a year and one-half after graduation.
Women are more Likely to Leave Wisconsin than Men

MYTH

Regardless of residency as an undergraduate, slightly more women remain in Wisconsin than men after graduation.

A story that received a considerable amount of attention about a year ago maintained that Wisconsin was losing a disproportionate number of female college graduates to other states. This too is a misconception.

Female graduates from the 1999 graduating class, who were residents as undergraduates, remained in Wisconsin after graduation in slightly greater proportions than did men.

The same pattern holds for students who came to Wisconsin as reciprocity students or non-residents.

The proportion of women from the earlier graduating classes (1979, 1984, 1989 and 1994) currently living in Wisconsin is also slightly greater than men.
• It has been asserted by some observers that the UW System is not producing graduates to meet critical state employment needs because UW graduates earn their credential and leave Wisconsin. This too is a misconception.

• 93% of the teachers trained in the UW System and graduating in 1999 were living in Wisconsin (and 87% were working in covered employment).

• Similarly for nurses, 91% were living in Wisconsin (and 89 percent were in covered employment).

• Certainly, UW teaching and nursing graduates are helping meet the states critical needs in these areas.

• Even in engineering, where again there is what some would maintain as a ‘brain drain’ problem, 70% of the engineering graduates from the class of 1999 were still in Wisconsin a year and one-half later.
• Because the proportion of Wisconsin high school graduates attending and graduating from college is above average, and the proportion of adults in Wisconsin holding a bachelors degree or higher is below the national average, some have maintained that Wisconsin is losing a disproportionate number of its graduates over time. This is partially true.

• While 82% of the 1999 graduates were living and/or working in Wisconsin in 2001, the proportion of the earlier graduating classes living in Wisconsin in 2001 was lower – 72% of the 1994 graduates, 67% of the of the 1989 graduates and 56% of the 1984 and 1979 graduates were still in Wisconsin in 2001.

• Does this mean that Wisconsin has a “brain drain” problem and that this problem is a result of out-migration – i.e., graduates leaving the State. The answer to that question is not necessarily.

• In general, college graduate are more mobile than the rest of the population, so some state-to-state migration of college graduates is to be expected. In a study conducted by the UW-Madison Applied Population Laboratory, evidence was presented indicating that Wisconsin was not losing a disproportionate number of college graduates. They concluded that the lower than average number of college graduates in the Wisconsin population was the result of a lower than average in-migration of college graduates.

• When the Census Bureau releases the state-to-state migration data from the 2000 census, we will be able to determine if these conclusions still hold.

• One could speculate, that as Wisconsin continues to become a branch office state, rather than a headquarters state, the problem could worsen.
The Impact of a UW Education

Wisconsin is Losing Nurses and Educators Over Time

After 20 Years
- 60% of Educators and Nurses remain in WI
- 50% of Business, Liberal Studies and Social Sciences grads remain in WI
- 40% of Engineers remain in WI

•While we just saw that nurses and teachers were living and working in Wisconsin immediately after graduation, there has been some concern that over time, Wisconsin is losing its nurses and teachers. This is partially true.

•For the 1979 graduating class, 20 years after graduation, 56% were still in Wisconsin. Teachers and Nurses were retained at a slightly higher than average level at over 60%. At the other extreme, engineers were retained in below average proportions at 40%.
It is sometimes maintained that a college education is a ticket to high salaries and that college graduates start their working lives earning high salaries. This is partially true.

The average earnings of the 1999 graduates, approximately a year and one-half after graduation was $26,000. The slide shows salaries of graduates in selected fields.

Teachers started out earning a salary very close to the average for all graduates.

Nurses started at about $10,000 above the average.

Computer science grads and engineers, not surprisingly, started at relatively high levels.
The Impact of a UW Education

PARTIALLY TRUE

- It has been suggested that the starting salaries in Wisconsin are low when compared to the rest of the nation. This is partially true.
- Across the fields for which data were available, starting salaries in Wisconsin were low relative to national averages.
- However, there was considerable variation. Nurses in Wisconsin earned starting salaries that were 97% of the national average and civil engineers earned salaries that were 93% of the average. This reflects active and competitive markets in these fields in Wisconsin.
- At the other extreme, visual/performing arts graduates earn 68% of the national average and history graduates earn 61% of the national average. This reflects the lack of markets for these fields in Wisconsin and may be an incentive for these graduates to leave the state.

### Starting Salaries in Wisconsin are Low

<table>
<thead>
<tr>
<th>Field</th>
<th>National</th>
<th>Wisconsin</th>
<th>Diff.</th>
<th>% of Nat’l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>$39,494</td>
<td>$34,109</td>
<td>$5,385</td>
<td>86%</td>
</tr>
<tr>
<td>Finance/Economics</td>
<td>$39,961</td>
<td>$28,913</td>
<td>$11,048</td>
<td>72%</td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>$51,137</td>
<td>$43,864</td>
<td>$7,273</td>
<td>86%</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>$41,193</td>
<td>$38,287</td>
<td>$2,906</td>
<td>93%</td>
</tr>
<tr>
<td>Computer Science</td>
<td>$51,135</td>
<td>$42,159</td>
<td>$8,245</td>
<td>82%</td>
</tr>
<tr>
<td>English</td>
<td>$28,438</td>
<td>$20,357</td>
<td>$8,081</td>
<td>72%</td>
</tr>
<tr>
<td>History</td>
<td>$30,395</td>
<td>$18,518</td>
<td>$11,877</td>
<td>61%</td>
</tr>
<tr>
<td>Political Science</td>
<td>$28,546</td>
<td>$21,745</td>
<td>$6,801</td>
<td>76%</td>
</tr>
<tr>
<td>Nursing</td>
<td>$37,803</td>
<td>$36,649</td>
<td>$1,154</td>
<td>97%</td>
</tr>
<tr>
<td>Visual/Performing Arts</td>
<td>$27,575</td>
<td>$18,690</td>
<td>$8,885</td>
<td>68%</td>
</tr>
</tbody>
</table>
Another commonly heard characterization of the value of a college education is that it provides an opportunity for income growth over an individual’s working life. This is an accurate reflection of what happens to a UW graduate. By comparing the incomes of 1999 graduates with the incomes of 1979 graduates (who have been working for 20 years) we can estimate how incomes grow over a working life cycle, in real term, i.e., without the impact of inflation.

Looking at the set of selected fields on the slide, Engineers experience the greatest growth in income over their career. Recent graduates start out at an average salary of about $41,000, while after 20 years, the 1979 graduates were earning an average of almost $81,000.

Business graduates also experienced significant income growth, going from a starting salary of just over $32,000 to an average of almost $70,000.

At the other extreme the income growth for Nurses and teachers was much more modest. Nurses went from almost $37,000 to just over $47,000 and Teachers went from almost $26,000 to approximately $41,000.

It is not surprising that there are teacher and nursing shortages.
• A college education, though it is to some extent consumption (aka enjoyable), is primarily an investment. As such it provides economic and non-economic returns. It also provides returns to the public which invests in it through support of public higher education as well as to the individual.
There are Significant Economic Returns to a UW Education

- UW graduates earn $700,000 more than individuals with only a high school diploma over their lifetime.
- An average over $45,000 in increased income tax revenue per graduate.

It has been maintained, particularly by this Board, that there are significant economic benefits to the students and the State from the investment in a UW education. This contention is accurate.

Using the data from this analysis, a UW graduate will earn, on average, $700,000 more than a high school graduate over his or her lifetime.

The return to the State for its investment in a UW education is also substantial. A simple and very conservative approach looks at the income tax revenue generated by the additional income that a college graduate earns compared to a high school graduate. Using this estimation method, each UW graduate will, on average, generate an additional $45,500 of income tax revenue for the state.

When you consider that the UW System graduates approximately 28,000 students each year, the return to the state is very large – A UW education is an investment by the State that pays a substantial return.
The Impact of a UW Education

Non-economic Quality of Life Returns