Using the Hawai‘i DXP to Examine Student Workforce Outcomes

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Summary of Presentation

Use University of Hawai‘i degree data and state unemployment insurance data to explore:

- The types of degrees and areas of study that produce the highest paid employees one to three years after graduation
- The kinds of industries graduates work in and how it changes over time
- Whether graduates work in industries related to their area of study
Data Available

Unemployment Insurance Data
• Annual wages matched to student record, academic years 2007-08, 2008-09, and 2009-2010
• Industry code by NAICs
• Does not include those not working, self-employed, federal employees, out-of-state, and those with no SSN match

University Data
• Degree earned
• Major by CIP codes

Major Assumptions
• Select all UH graduates in AY 2008 – AY 2010 who earned a Certificate of Achievement or higher
• Select only students who worked in all four quarters of any year after graduation
• Examine wages up to three years after graduation (Year 2 includes AY 2008 and 2009 graduates only, Year 3 includes AY 2008 graduates only)
• Eliminate all industries with five or less graduates from charts showing median earnings by industry
• Use highest degree that a graduate earned in a given year; previous higher degrees are possible
Where are our degree earners and how much do they earn?

Summary of data used

- Total number of graduates AY 2008 – AY 2010: 23,114
- Total number found in workforce anytime in years 1 through 3 after graduation using unemployment insurance data: 12,225 (52.9%)
- Total number worked in every quarter in a given year, and % of total graduates:

<table>
<thead>
<tr>
<th>Year</th>
<th>No. Worked</th>
<th>% of Total Grads</th>
<th>No. Still Enrolled in Year 1</th>
<th>% of Workers Still Enrolled in Year 1</th>
<th>No. Worked in Year 2</th>
<th>% of Total Grads</th>
<th>No. Still Enrolled in Year 2</th>
<th>% of Workers Still Enrolled in Year 2</th>
<th>No. Worked in Year 3</th>
<th>% of Total Grads</th>
<th>No. Still Enrolled in Year 3</th>
<th>% of Workers Still Enrolled in Year 3</th>
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</thead>
<tbody>
<tr>
<td>2008</td>
<td>3,606</td>
<td>48.0</td>
<td>914</td>
<td>25.3</td>
<td>3,612</td>
<td>48.0</td>
<td>793</td>
<td>22.0</td>
<td>3,564</td>
<td>47.4</td>
<td>636</td>
<td>17.8</td>
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<tr>
<td>2009</td>
<td>3,548</td>
<td>45.8</td>
<td>945</td>
<td>26.6</td>
<td>3,646</td>
<td>47.0</td>
<td>811</td>
<td>22.2</td>
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<tr>
<td>2010</td>
<td>3,609</td>
<td>46.0</td>
<td>954</td>
<td>26.4</td>
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</tr>
</tbody>
</table>
Median Annual Earnings
AY 2008 - AY 2010 Degree Earners 1/

Change in Median Earnings Year 1 to Year 3 (%)

1 Year 3 includes AY 2008 and AY 2009 graduates only. Year 3 includes AY 2008 graduates only.
Median Earnings/Change from Year 1 to Year 3, By CIP Program Area
AY 2008 - AY 2010 Certificates
(AY 2008 - AY 2010 Certificates 1/
Change in Median Earnings Year 1 to Year 3 (%)
Median Annual Earnings ($)
50,000 60,000 70,000 80,000 90,000 100,000 110,000 120,000 130,000 140,000
0 10,000 20,000 30,000 40,000 50,000 60,000 70,000 80,000
Change in Median Earnings Year 1 to Year 3 (%)
0 -20.0 -40.0 -60.0 -80.0 -100.0 -120.0 -140.0
Business Management and Admin Services
Personal and Misc Services (Not Culinary)
Precision/Production Trades
Mechanics and Repairers
Culinary
Engineering-Related Technologies
Health Professions and Related Sciences

1/ Year 3 includes AY 2008 graduates only.

Median Earnings/Change from Year 1 to Year 3, By CIP Program Area
AY 2008 - AY 2010 Associate’s
(AY 2008 - AY 2010 Associate’s 1/ Change in Median Earnings Year 1 to Year 3 (%)
Median Annual Earnings ($)
50,000 60,000 70,000 80,000 90,000 100,000 110,000 120,000 130,000 140,000
0 10,000 20,000 30,000 40,000 50,000 60,000 70,000 80,000
Change in Median Earnings Year 1 to Year 3 (%)
0 -20.0 -40.0 -60.0 -80.0 -100.0 -120.0 -140.0
Business Management and Admin Services
Public Administration Services
Construction Trades
Communications Technologies
Lib Arts and Sci, General Studies and Humanities
Econ, General Studies
Culinary
Precision/Production Trades
Mechanics and Repairers
Education
Health Professions and Related Sciences

1/ Year 3 includes AY 2008 graduates only.
Median Annual Earnings, By CIP Program Area
AY 2008 - AY 2010 Graduate Degrees 1/
Bubble size represents relative number of graduates in program

Selected Industries in Which Graduates Are Employed (NAICS)
Before Graduation Through 3rd Year After Graduation
Median Wages by Selected NAICS Industry
AY 2008 - AY 2010 Associate's 1/

Median Wages by Selected NAICS Industry
AY 2008 - AY 2010 Bachelor's 1/

1/ Year 3 includes AY 2008 graduates only.
Median Wages by Selected NAICS Industry
AY 2008 - AY 2010 Graduate Degrees 1/

No. Employed by Area of Study and Industry Employed
Year Two

1/ Year 3 includes AY 2008 graduates only.

Chart includes programs with 100 or more graduates in AY 2008 through AY 2010 and industries with 100 or more employed in year 2.
Next Steps

1. Gather more years in order to have more consistent data for each graduation cohort
2. Fill in some gaps
   - Incorporate federal employment data to the DLIR Unemployment Insurance data
   - Incorporate Multi-State data to find out if our students are working in other states
3. More granular analysis of the data
   - More detailed analysis of majors
   - Examine those that continue to be enrolled after graduation
   - Examine the existence of previous degrees
Questions