



DOUGLAS COLLEGE



Internal Analysis Report



Outbound  
245



**Assessment Period:**

January 1, 2020 - January 27, 2023



**Academic Level/Assessment Solution:**

Bachelors Business GBE



**Aggregate:**

Outside U.S.



GLOBAL SERVICES

PERREGRINE

### Data Included in Report

#### Outbound Assessment

- Business Exit Exam

### Description of the report:

The Internal Analysis report is used for measuring learning outcomes. The report provides results of the Inbound and Outbound exams (and Mid-point Exam when available) by utilizing an analysis of means and frequency correct. The report is used for programmatic evaluation, identifying curriculum gaps and strengths, and provides one external benchmark with percentile ranking. The data are presented at the topic, subtopic, and subject levels.

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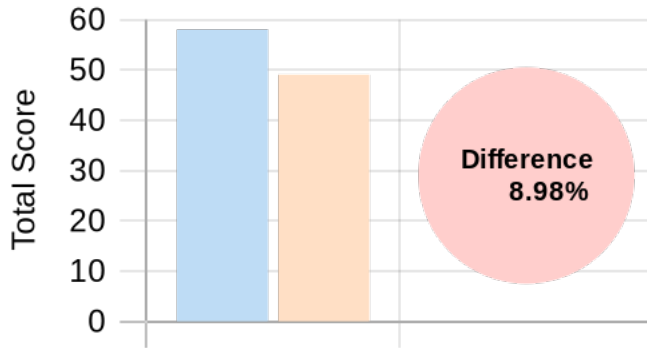
# Internal Analysis Report — Douglas College

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<b>Validity and Reliability</b>	88
<b>Glossary of Terms</b>	90

**Executive Summary**

**Outbound vs Aggregate (%)**



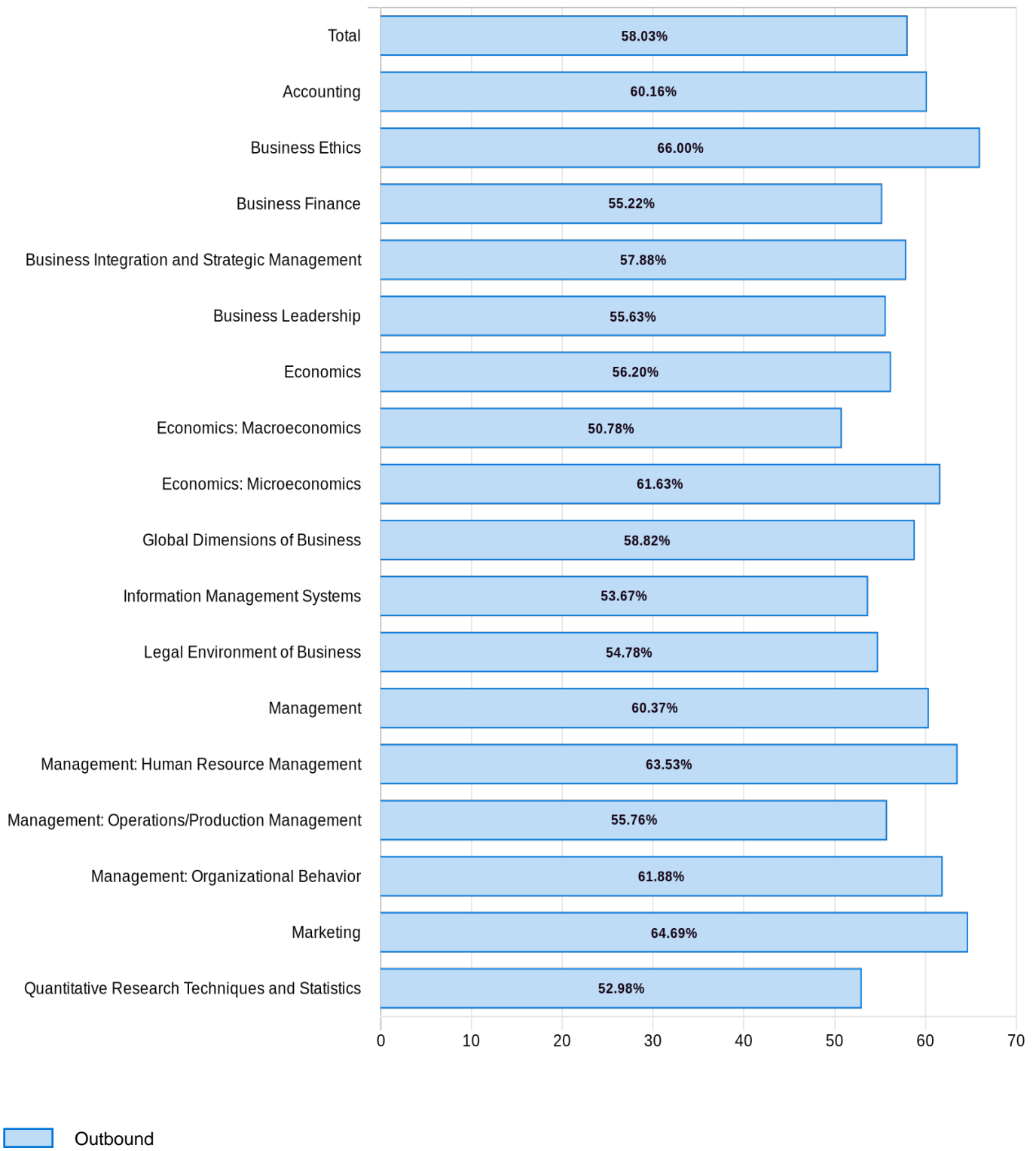
- Outbound: 58.03%
- Outside U.S.: 49.05%

Top 3 Outbound Topic Scores	Bottom 3 Outbound Topic Scores
<ul style="list-style-type: none"> <li>• Business Ethics (66.00%)</li> <li>• Marketing (64.69%)</li> <li>• Management: Human Resource Management (63.53%)</li> </ul>	<ul style="list-style-type: none"> <li>• Economics: Macroeconomics (50.78%)</li> <li>• Quantitative Research Techniques and Statistics (52.98%)</li> <li>• Information Management Systems (53.67%)</li> </ul>

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

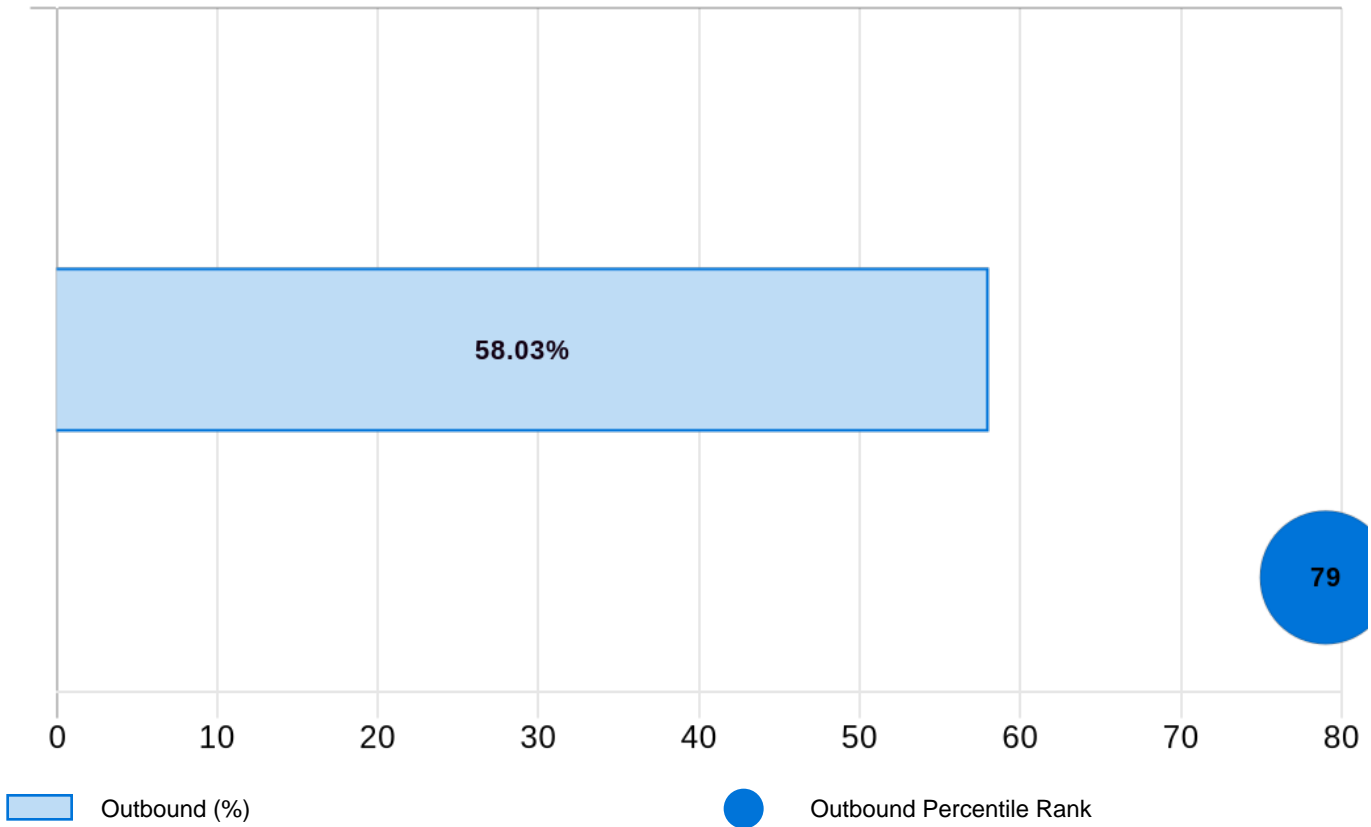
### Outbound Exam Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Outbound Exam Results



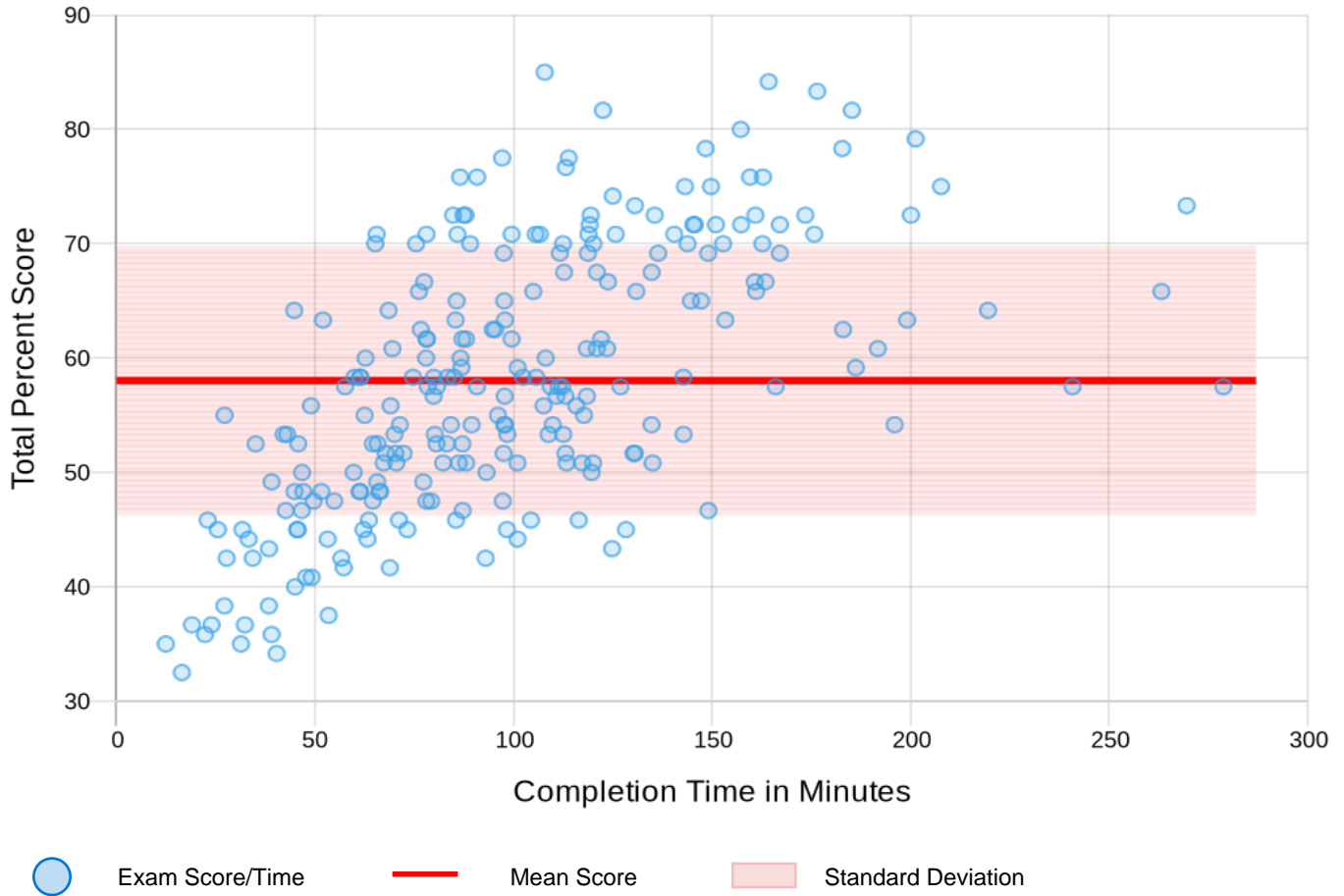
	<b>Outbound</b>
Sample Size	245
Total Score	58.03%
Mean Completion Time	99.8 minutes
Percentile Rank	79
Selected Aggregate	Outside U.S.



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Outbound Exam Completion Time and Total Result Summary

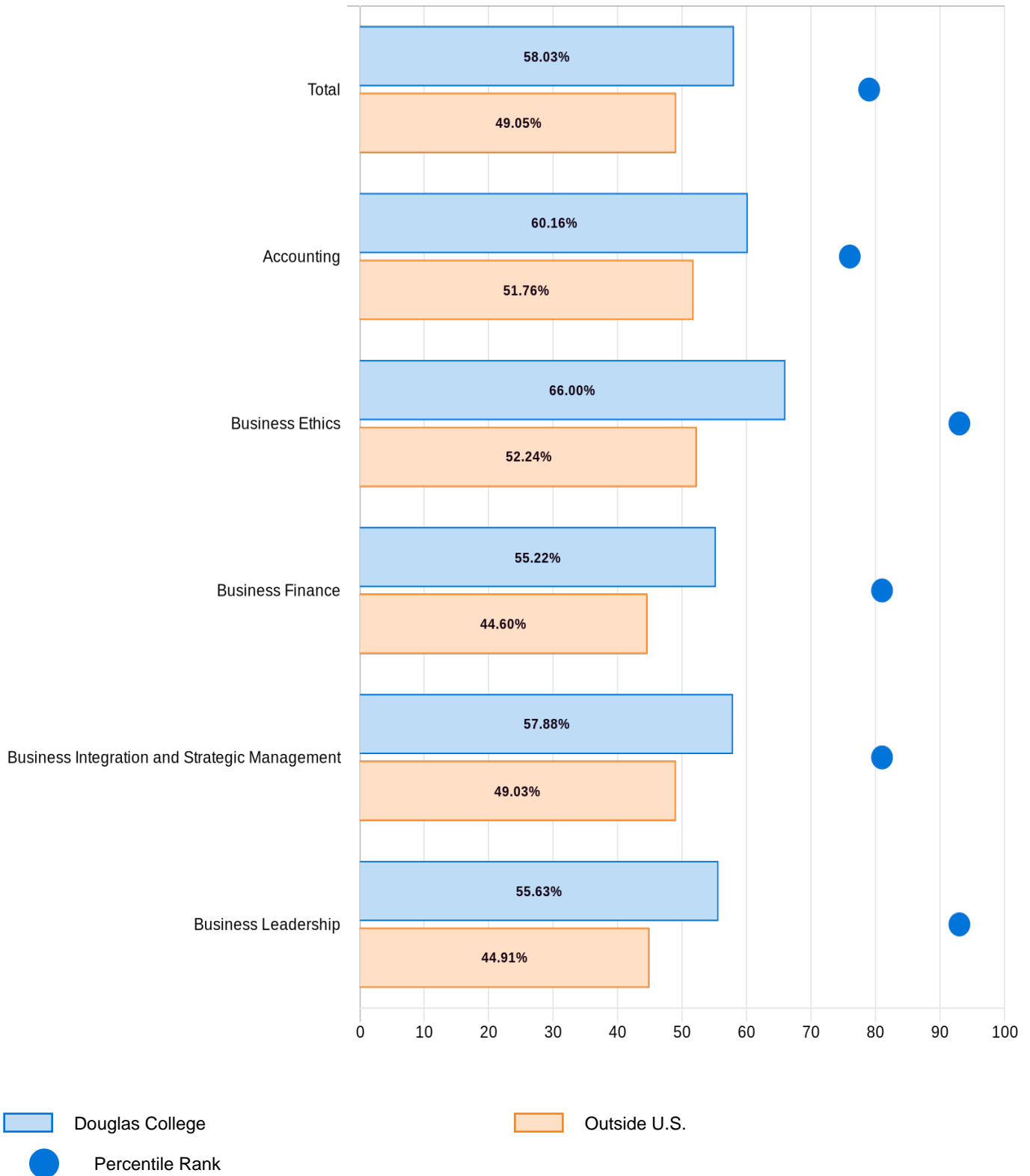


	Douglas College	Outside U.S.
Sample Size	245	8,370
Mean Completion Time	99.8 minutes	98.08 minutes
Mean Score	58.03%	49.05%
Max Score	85.00%	NA
Min Score	32.50%	NA
Standard Deviation	11.48	9.03
* Results are sorted by number of minutes taken to complete the exam.		

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

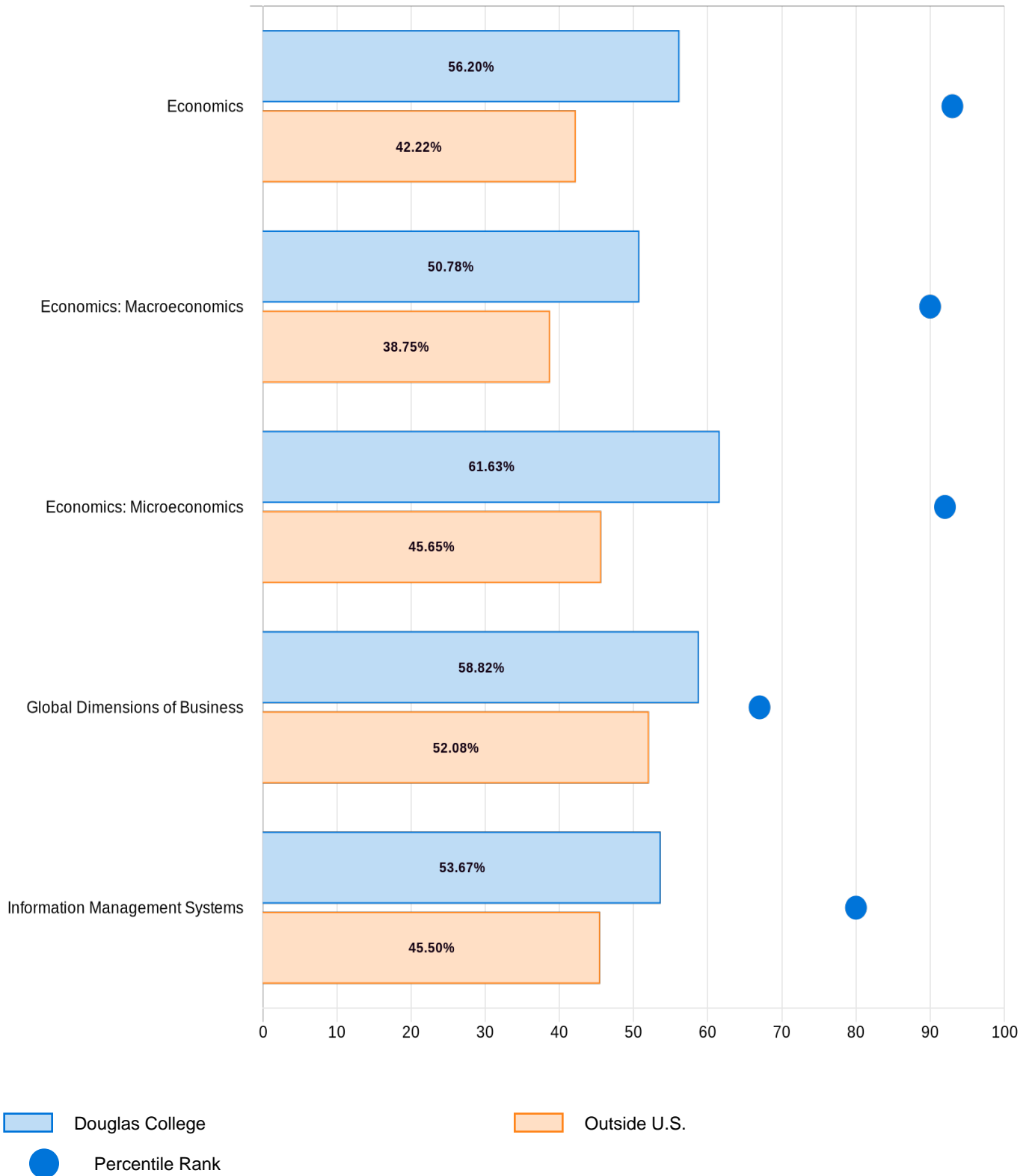
### Comparison of Topic-level Outbound Results to Selected Aggregate Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

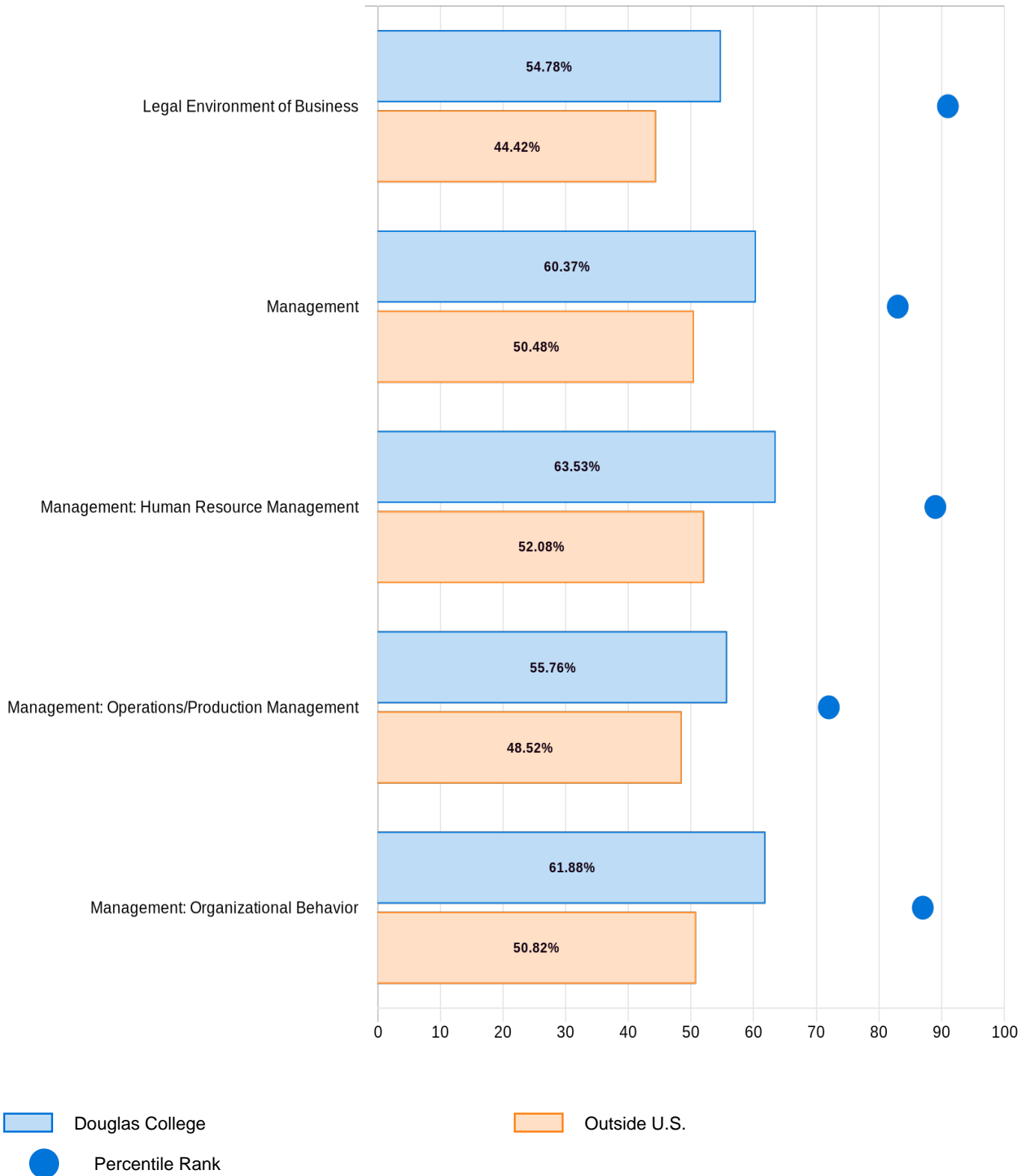
### Comparison of Topic-level Outbound Results to Selected Aggregate Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Comparison of Topic-level Outbound Results to Selected Aggregate Results



Comparison of Topic-level Outbound Results to Selected Aggregate Results



Douglas College  
Percentile Rank

Outside U.S.



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Outbound Exam Summary

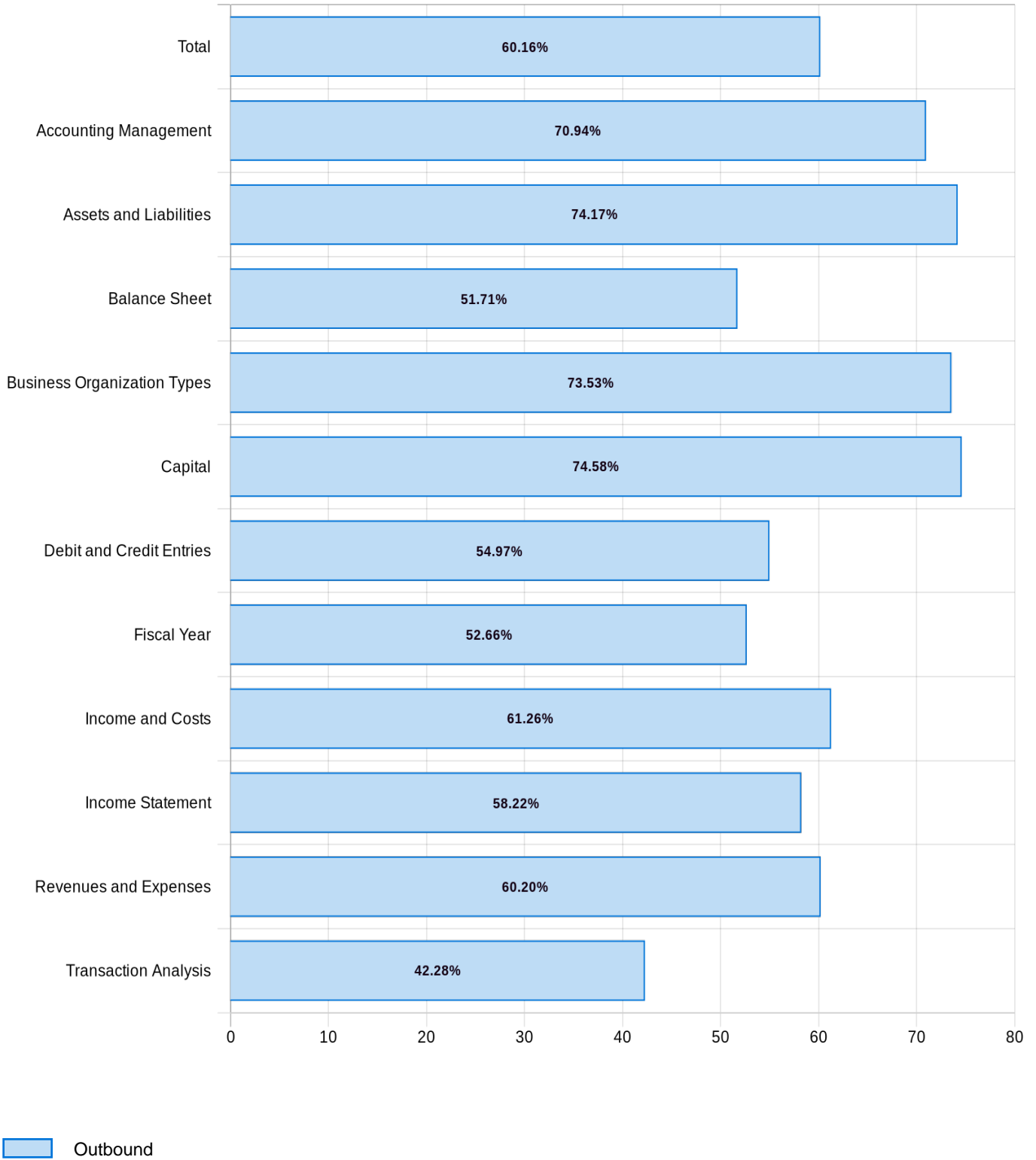
Topic	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Accounting	2,450	60.16%	82,418	51.76%	76	45.00%	49.33%	54.67%	63.67%
Business Ethics	2,450	66.00%	60,779	52.24%	93	45.06%	52.00%	55.90%	61.62%
Business Finance	2,450	55.22%	81,289	44.60%	81	37.67%	42.67%	47.80%	56.67%
Business Integration and Strategic Management	2,450	57.88%	69,306	49.03%	81	43.15%	48.14%	52.67%	59.40%
Business Leadership	2,450	55.63%	59,153	44.91%	93	40.07%	44.33%	47.00%	51.00%
Economics	2,450	56.20%	61,682	42.23%	93	35.67%	40.33%	43.67%	51.33%
Economics: Macroeconomics	1,225	50.78%	30,632	38.75%	90	33.10%	35.92%	41.10%	46.00%
Economics: Microeconomics	1,225	61.63%	31,050	45.65%	92	38.00%	44.00%	48.67%	56.00%
Global Dimensions of Business	2,450	58.82%	68,364	52.08%	67	43.94%	51.67%	58.02%	62.67%
Information Management Systems	2,450	53.67%	77,078	45.51%	80	39.56%	43.57%	48.33%	55.00%
Legal Environment of Business	2,450	54.78%	45,195	44.42%	91	39.31%	43.00%	46.38%	51.40%
Management	2,450	60.37%	85,350	50.48%	83	43.67%	48.74%	54.33%	60.95%
Management: Human Resource Management	817	63.53%	28,863	52.08%	89	45.70%	50.52%	55.69%	62.38%
Management: Operations/Producti on Management	825	55.76%	28,620	48.52%	72	39.60%	45.43%	52.15%	63.10%
Management: Organizational Behavior	808	61.88%	27,831	50.82%	87	44.33%	50.00%	55.33%	61.18%
Marketing	2,450	64.69%	81,428	53.82%	80	45.84%	52.00%	58.00%	67.10%
Quantitative Research Techniques and Statistics	2,450	52.98%	58,204	43.24%	90	37.99%	42.09%	46.25%	51.00%
Summary	29400	58.03%	830,246	49.05%	79	42.75%	47.06%	52.33%	59.84%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

Selected Aggregate Pool: Outside U.S.



**Accounting - Comparison of Inbound Exam Results with Outbound Exam Results**



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

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### Accounting - Assessment Summary

<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	60.16%
Mean Completion Time	8.22 minutes
Percentile Rank	76
Max Score	100.00%
Min Score	10.00%
Standard Deviation	19.79

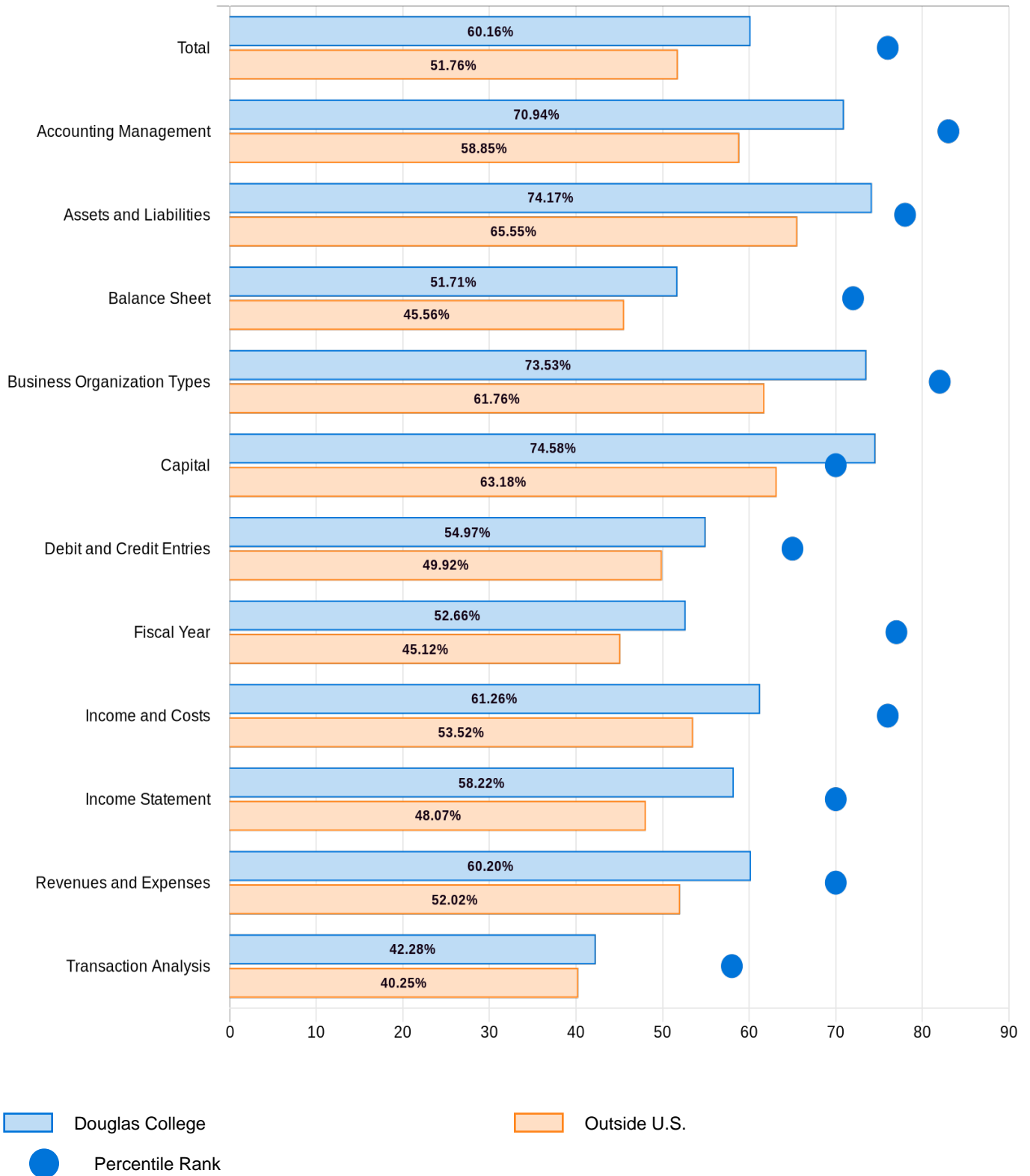
<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	8,250
Total Score	51.76%
Mean Completion Time	9.91 minutes
Standard Deviation	9.92



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Accounting - Outbound Results Comparison to Aggregate Results



■ Douglas College  
● Percentile Rank

Outside U.S.

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Accounting - Outbound Exam Summary

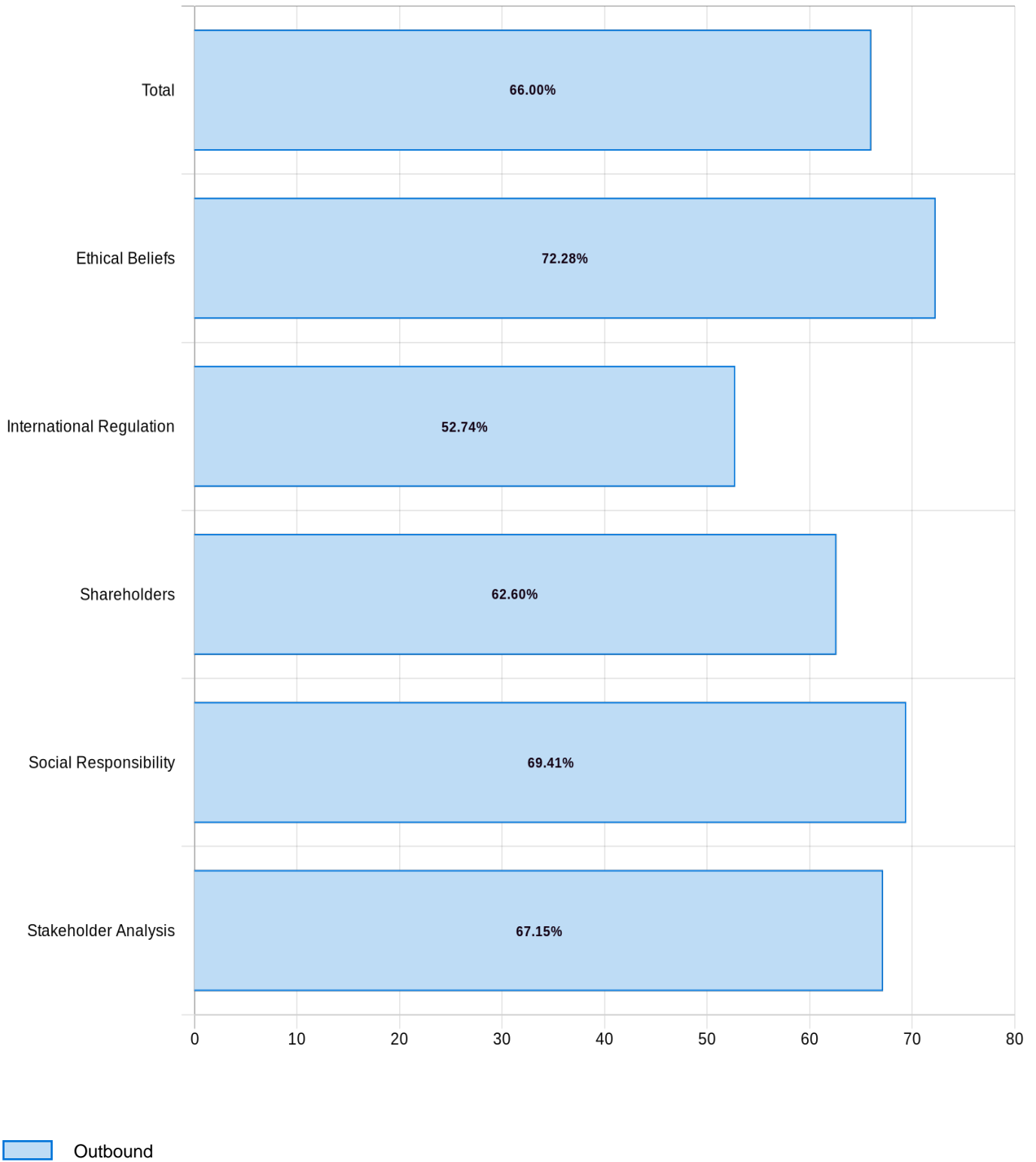
Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Accounting Management	203	70.94%	5,889	58.85%	*83	50.27%	57.63%	64.22%	71.38%
Assets and Liabilities	240	74.17%	7,044	65.55%	*78	57.78%	65.00%	70.27%	78.31%
Balance Sheet	234	51.71%	6,697	45.56%	*72	37.95%	43.98%	50.00%	57.37%
Business Organization Types	170	73.53%	4,652	61.76%	*82	54.29%	62.50%	68.18%	74.36%
Capital	177	74.58%	5,433	63.18%	*70	50.00%	59.56%	70.27%	82.23%
Debit and Credit Entries	342	54.97%	9,640	49.93%	*65	41.67%	48.14%	54.95%	61.41%
Fiscal Year	207	52.66%	5,770	45.12%	*77	37.78%	44.58%	49.63%	56.48%
Income and Costs	191	61.26%	5,776	53.52%	*76	46.42%	52.63%	57.53%	65.02%
Income Statement	213	58.22%	6,096	48.07%	*70	37.05%	43.90%	53.18%	68.35%
Revenues and Expenses	201	60.20%	5,654	52.02%	*70	41.67%	50.00%	59.01%	66.67%
Transaction Analysis	272	42.28%	8,432	40.25%	*58	30.91%	37.10%	44.44%	54.23%
Summary	2450	60.16%	71,083	51.76%	76	45.00%	49.33%	54.67%	63.67%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

Business Ethics - Comparison of Inbound Exam Results with Outbound Exam Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

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### Business Ethics - Assessment Summary

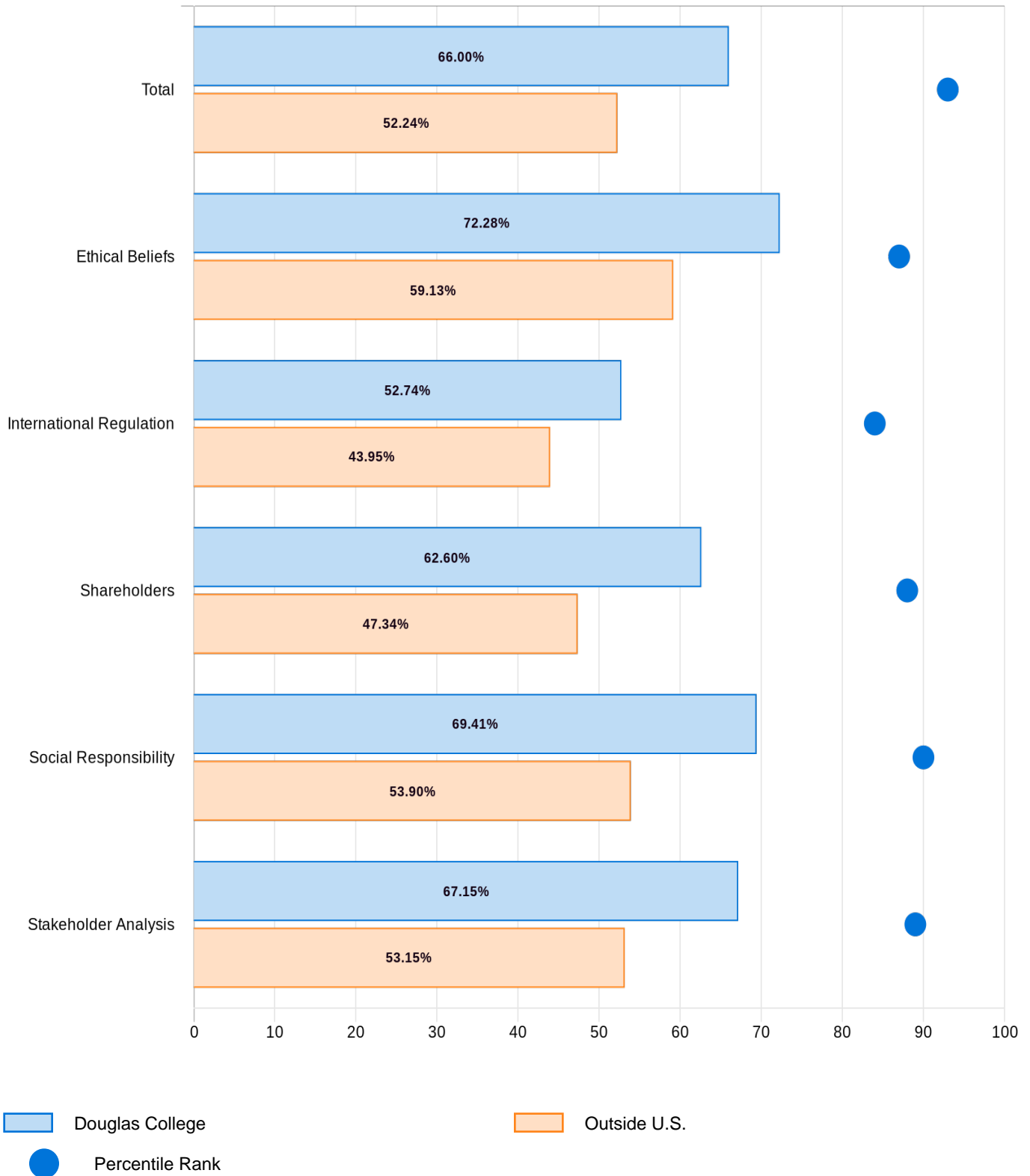
<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	66.00%
Mean Completion Time	7.26 minutes
Percentile Rank	93
Max Score	100.00%
Min Score	10.00%
Standard Deviation	18.96

<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	6,090
Total Score	52.24%
Mean Completion Time	7.9 minutes
Standard Deviation	9.48

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Business Ethics - Outbound Results Comparison to Aggregate Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Business Ethics - Outbound Exam Summary

Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Ethical Beliefs	523	72.28%	11,307	59.14%	*87	50.87%	58.76%	65.11%	70.76%
International Regulation	419	52.74%	9,416	43.95%	*84	37.82%	43.36%	48.81%	52.95%
Shareholders	262	62.60%	5,314	47.34%	*88	38.46%	46.51%	52.27%	61.54%
Social Responsibility	765	69.41%	15,847	53.90%	*90	45.57%	51.70%	58.66%	65.27%
Stakeholder Analysis	481	67.15%	11,433	53.15%	*89	46.47%	51.87%	56.20%	65.62%
Summary	2450	66.00%	53,317	52.24%	93	45.06%	52.00%	55.90%	61.62%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

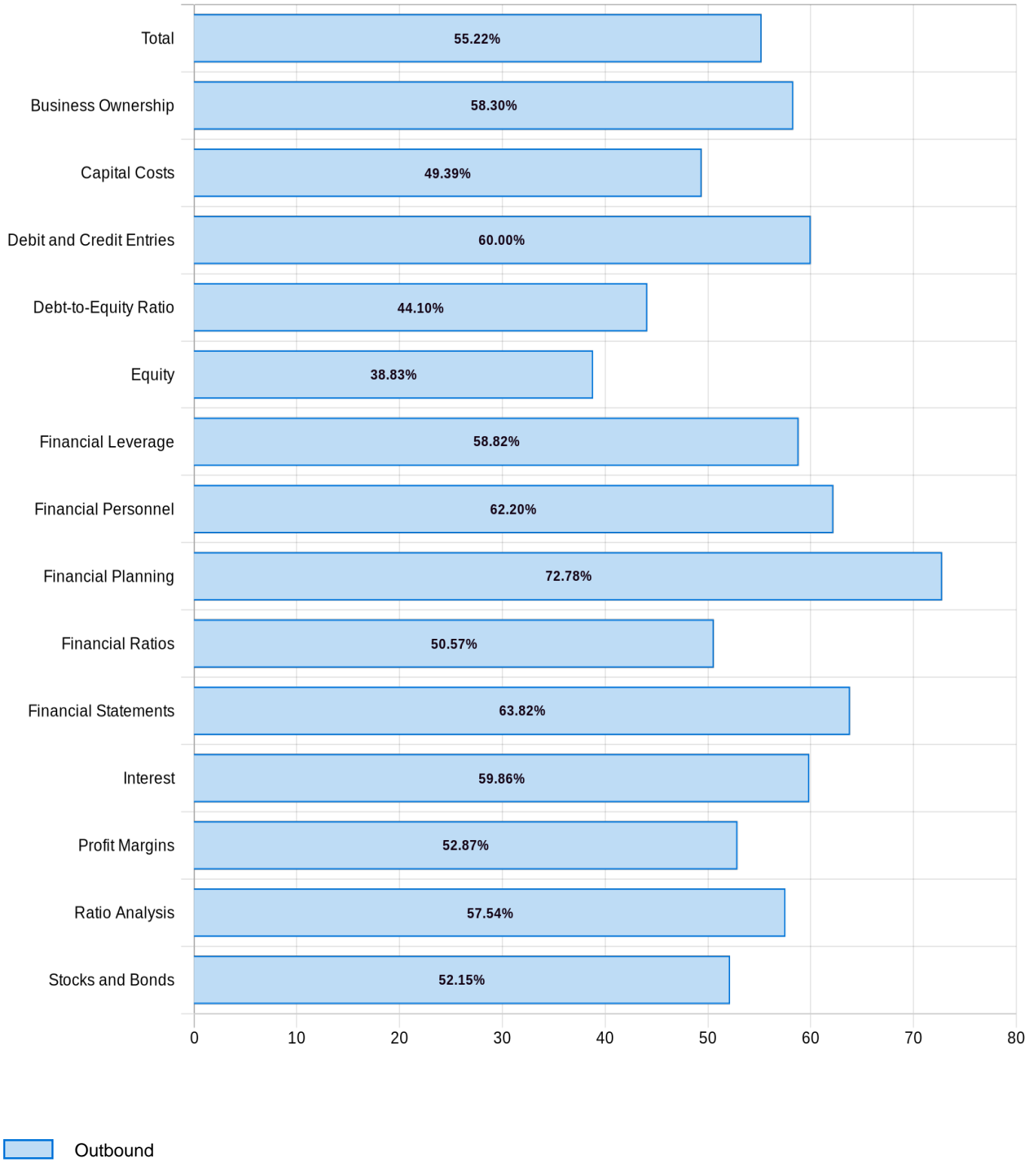
\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Business Finance - Comparison of Inbound Exam Results with Outbound Exam Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

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### Business Finance - Assessment Summary

<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	55.22%
Mean Completion Time	9.67 minutes
Percentile Rank	81
Max Score	100.00%
Min Score	10.00%
Standard Deviation	18.50

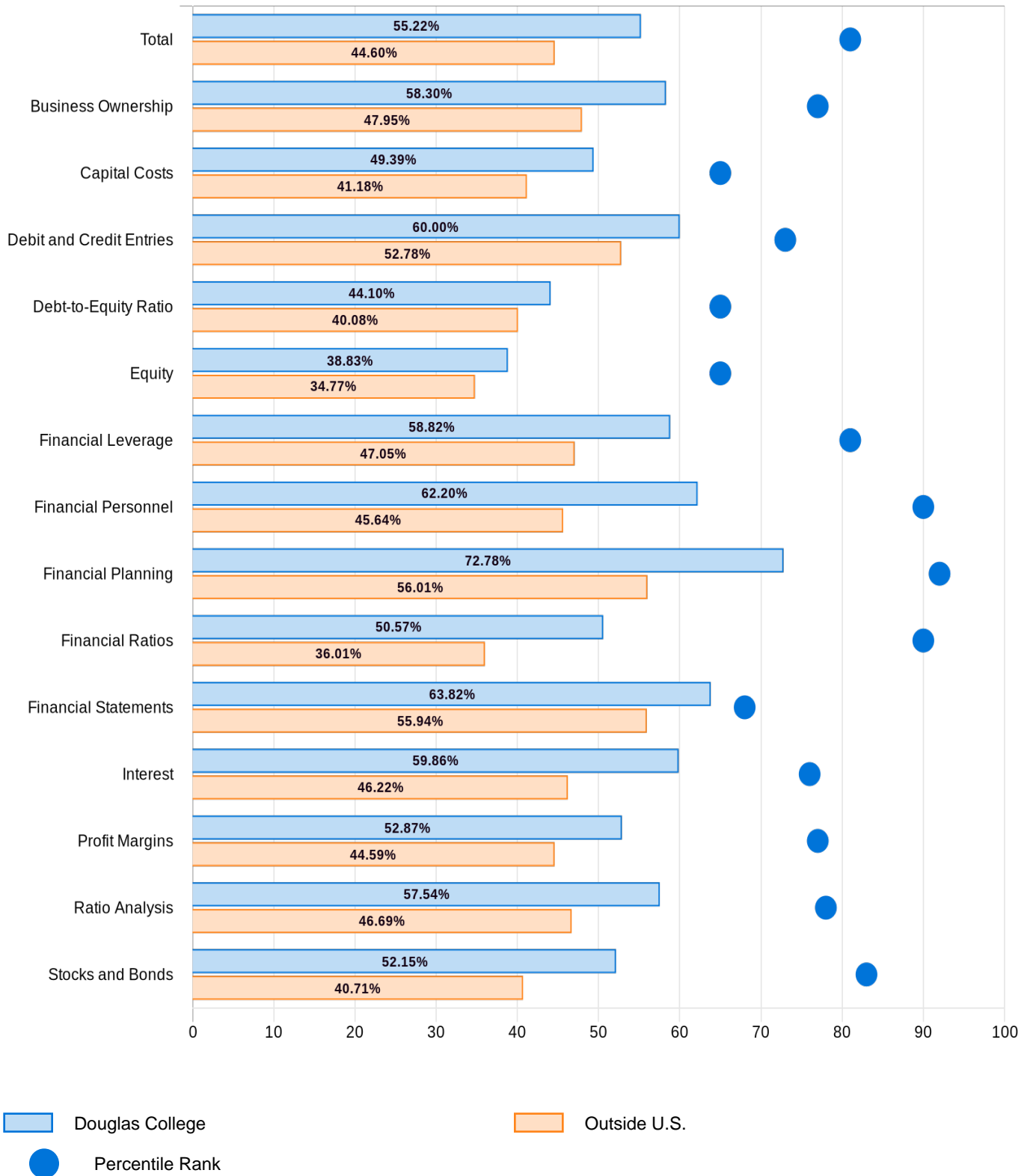
<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	8,190
Total Score	44.60%
Mean Completion Time	11.52 minutes
Standard Deviation	9.94



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Business Finance - Outbound Results Comparison to Aggregate Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Business Finance - Outbound Exam Summary

Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Business Ownership	259	58.30%	7,394	47.95%	*77	38.96%	45.63%	53.49%	60.98%
Capital Costs	164	49.39%	4,458	41.18%	*65	27.91%	36.78%	48.46%	59.34%
Debit and Credit Entries	10	60.00%	180	52.78%	*73	50.00%	50.83%	55.83%	66.67%
Debt-to-Equity Ratio	229	44.10%	6,037	40.08%	*65	31.46%	37.89%	43.59%	54.22%
Equity	188	38.83%	5,104	34.77%	*65	25.00%	35.01%	38.70%	46.49%
Financial Leverage	153	58.82%	5,557	47.05%	*81	39.02%	45.84%	52.27%	60.83%
Financial Personnel	164	62.20%	4,993	45.64%	*90	38.35%	44.74%	50.00%	57.54%
Financial Planning	180	72.78%	4,547	56.01%	*92	46.05%	55.00%	61.85%	69.61%
Financial Ratios	176	50.57%	4,624	36.01%	*90	27.71%	35.56%	40.95%	47.24%
Financial Statements	152	63.82%	4,564	55.94%	*68	46.78%	54.05%	61.97%	70.27%
Interest	147	59.86%	4,671	46.22%	*76	33.33%	42.42%	52.50%	66.67%
Profit Margins	157	52.87%	4,466	44.59%	*77	38.46%	43.90%	48.65%	55.56%
Ratio Analysis	285	57.54%	8,791	46.69%	*78	38.70%	45.10%	53.19%	60.59%
Stocks and Bonds	186	52.15%	5,521	40.71%	*83	33.12%	38.46%	44.38%	52.60%
Summary	2450	55.22%	70,907	44.60%	81	37.67%	42.67%	47.80%	56.67%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

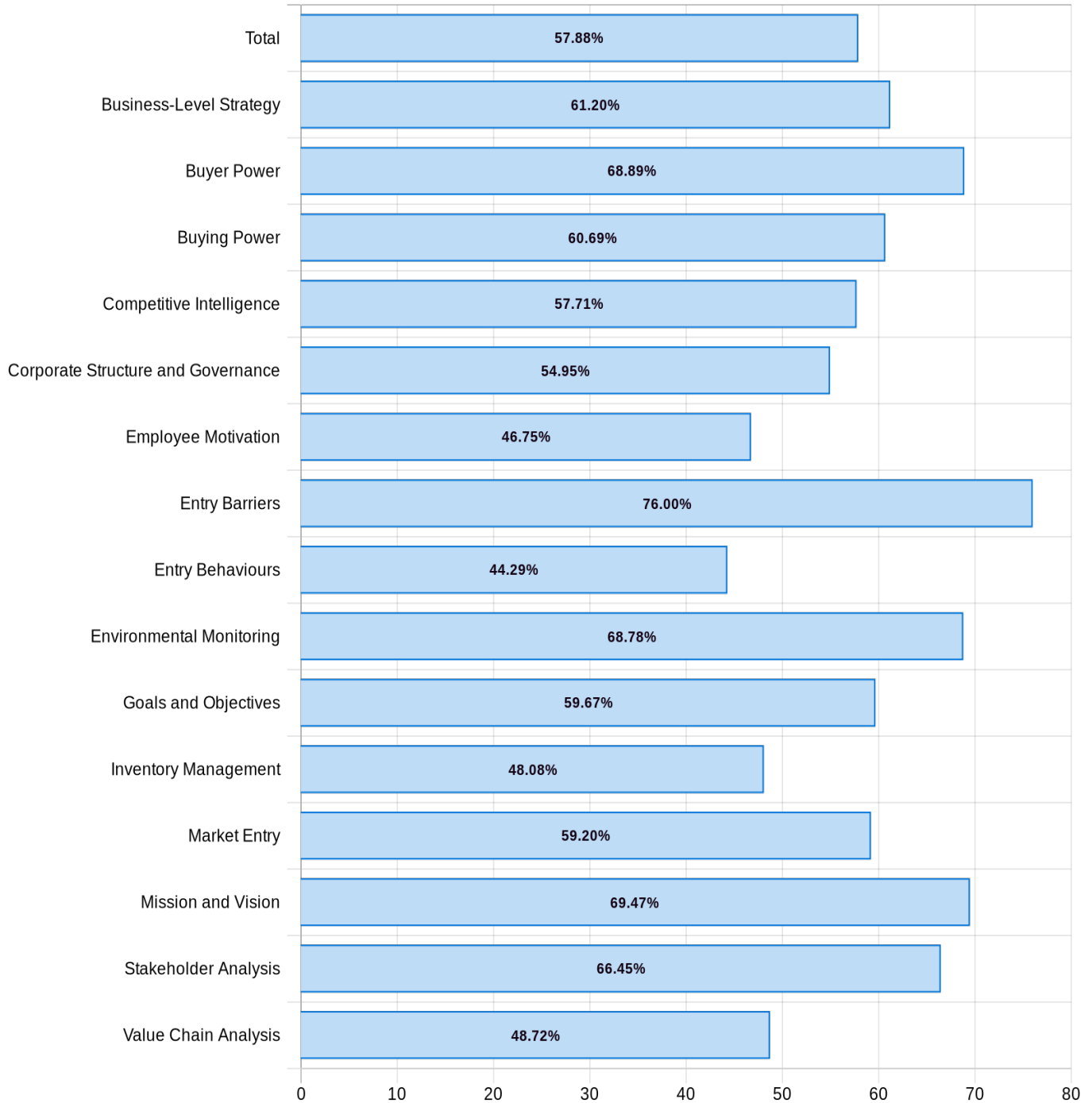
\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Business Integration and Strategic Management - Comparison of Inbound Exam Results with Outbound Exam Results



Outbound

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

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### Business Integration and Strategic Management - Assessment Summary

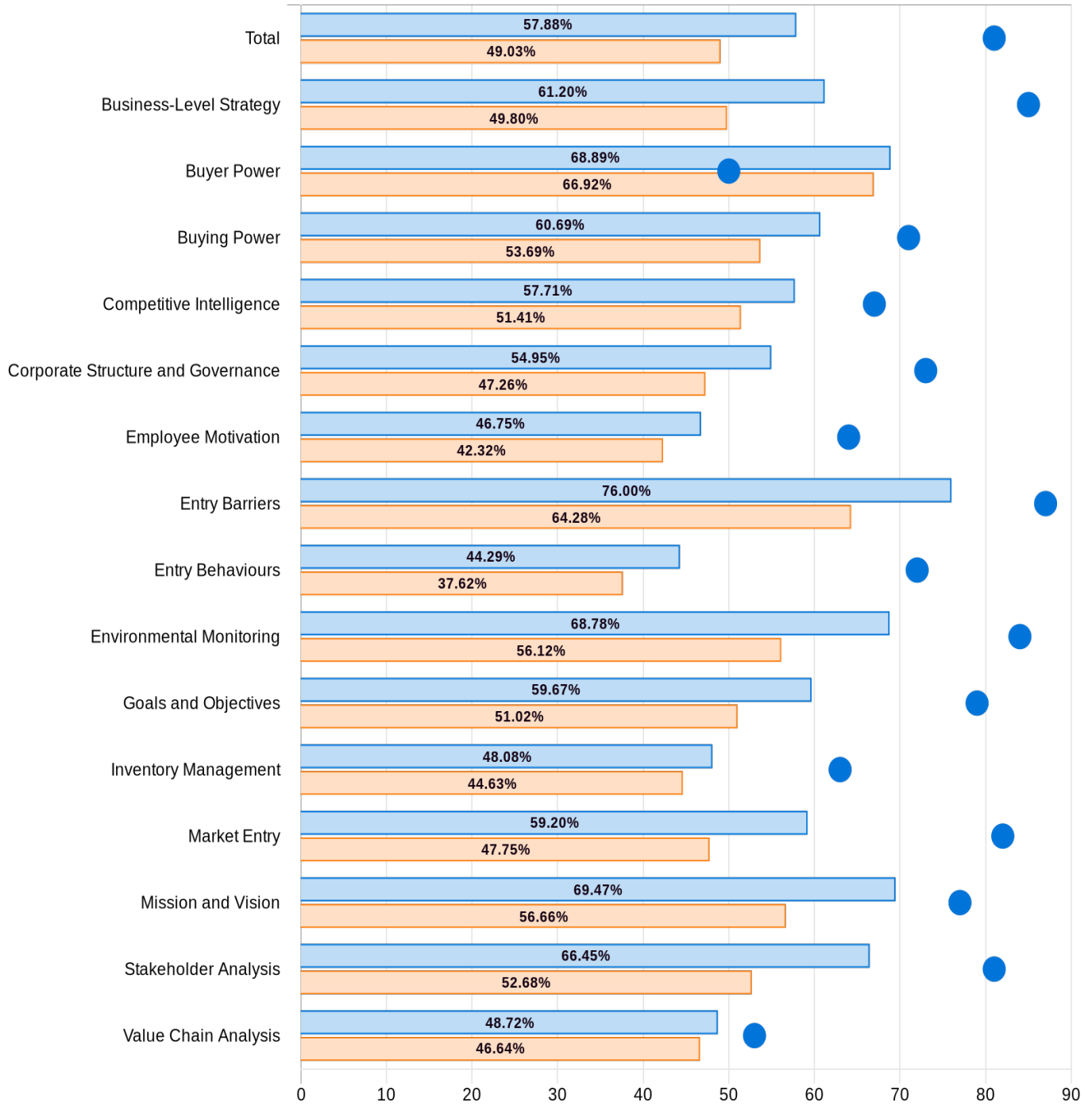
<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	57.88%
Mean Completion Time	8.33 minutes
Percentile Rank	81
Max Score	100.00%
Min Score	10.00%
Standard Deviation	18.37

<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	6,990
Total Score	49.03%
Mean Completion Time	10.88 minutes
Standard Deviation	9.71

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Business Integration and Strategic Management - Outbound Results Comparison to Aggregate Results



■ Douglas College  
● Percentile Rank

■ Outside U.S.



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Business Integration and Strategic Management - Outbound Exam Summary

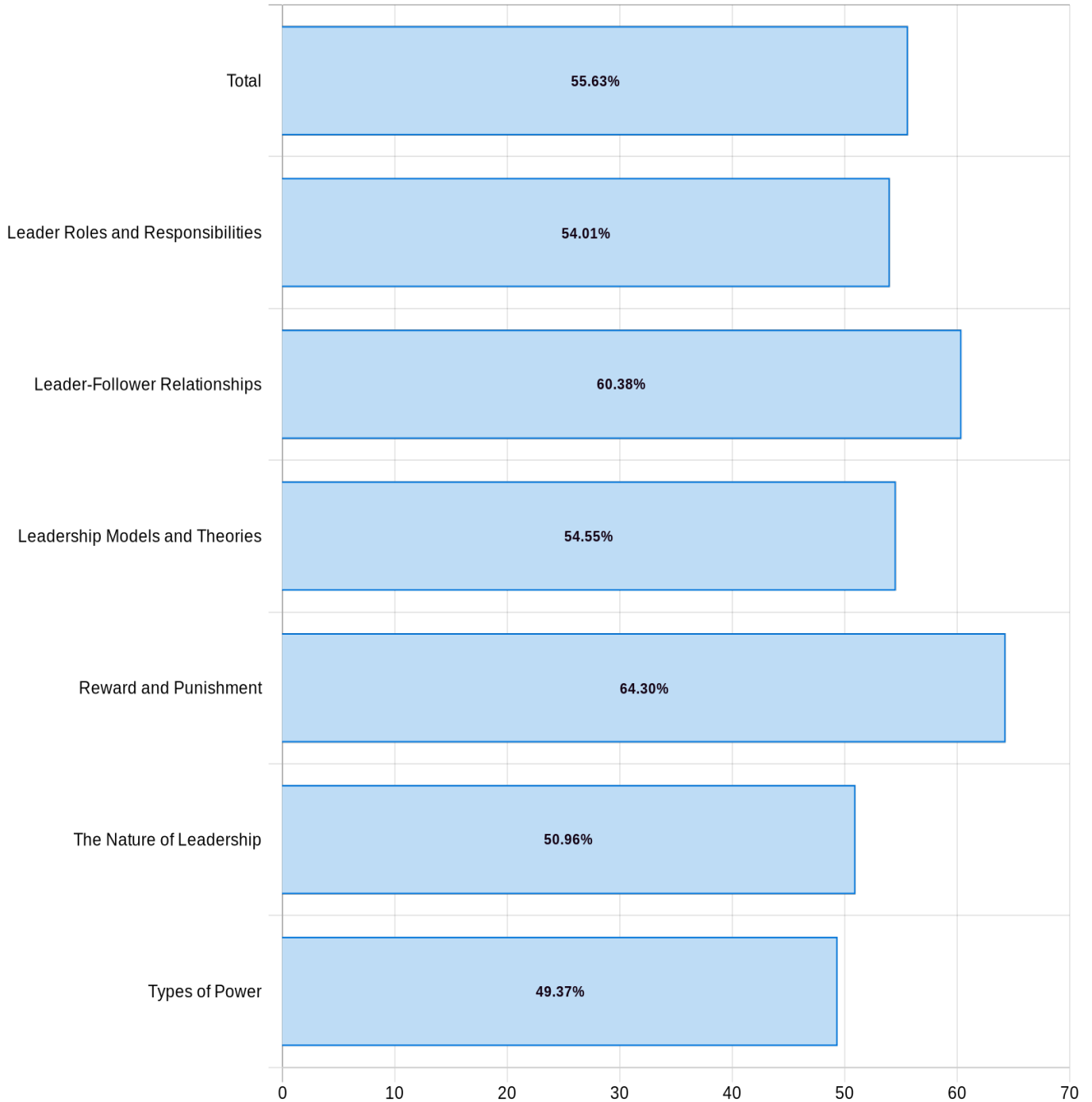
Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Business-Level Strategy	183	61.20%	4,201	49.80%	*85	42.49%	50.00%	54.93%	61.04%
Buyer Power	45	68.89%	878	66.92%	*50	61.32%	65.79%	70.97%	79.87%
Buying Power	145	60.69%	3,164	53.69%	*71	47.06%	51.34%	58.15%	63.08%
Competitive Intelligence	175	57.71%	4,670	51.41%	*67	41.86%	48.66%	55.66%	65.86%
Corporate Structure and Governance	273	54.95%	7,695	47.26%	*73	39.22%	46.00%	51.35%	60.00%
Employee Motivation	169	46.75%	4,179	42.32%	*64	32.49%	41.67%	46.90%	54.94%
Entry Barriers	25	76.00%	497	64.28%	*87	57.61%	65.35%	72.50%	74.80%
Entry Behaviours	140	44.29%	3,707	37.62%	*72	29.80%	35.05%	42.86%	50.00%
Environmental Monitoring	205	68.78%	5,379	56.12%	*84	47.67%	54.55%	61.95%	69.02%
Goals and Objectives	181	59.67%	4,667	51.02%	*79	43.90%	50.00%	54.94%	62.91%
Inventory Management	156	48.08%	4,221	44.63%	*63	36.99%	42.50%	48.64%	55.00%
Market Entry	174	59.20%	4,487	47.75%	*82	38.86%	45.23%	52.32%	60.69%
Mission and Vision	190	69.47%	4,973	56.67%	*77	47.50%	53.66%	63.16%	72.73%
Stakeholder Analysis	155	66.45%	4,510	52.68%	*81	44.12%	50.00%	59.33%	68.32%
Value Chain Analysis	234	48.72%	5,401	46.64%	*53	38.78%	46.26%	52.12%	58.92%
Summary	2450	57.88%	62,629	49.03%	81	43.15%	48.14%	52.67%	59.40%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

**Business Leadership - Comparison of Inbound Exam Results with Outbound Exam Results**



Outbound

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

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### Business Leadership - Assessment Summary

<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	55.63%
Mean Completion Time	8.79 minutes
Percentile Rank	93
Max Score	100.00%
Min Score	10.00%
Standard Deviation	20.59

<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	5,970
Total Score	44.91%
Mean Completion Time	8.93 minutes
Standard Deviation	7.86



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Business Leadership - Outbound Results Comparison to Aggregate Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Business Leadership - Outbound Exam Summary

Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Leader Roles and Responsibilities	424	54.01%	9,287	43.37%	*86	35.57%	41.90%	46.15%	53.23%
Leader-Follower Relationships	419	60.38%	8,610	49.64%	*86	44.00%	48.50%	52.63%	59.68%
Leadership Models and Theories	473	54.55%	9,246	44.13%	*87	38.46%	43.44%	47.32%	53.27%
Reward and Punishment	395	64.30%	7,875	55.47%	*80	50.00%	54.70%	59.62%	65.02%
The Nature of Leadership	261	50.96%	5,434	36.34%	*88	28.57%	33.33%	37.99%	45.91%
Types of Power	478	49.37%	9,524	40.23%	*84	32.77%	38.58%	43.79%	49.89%
Summary	2450	55.63%	49,976	44.91%	93	40.07%	44.33%	47.00%	51.00%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

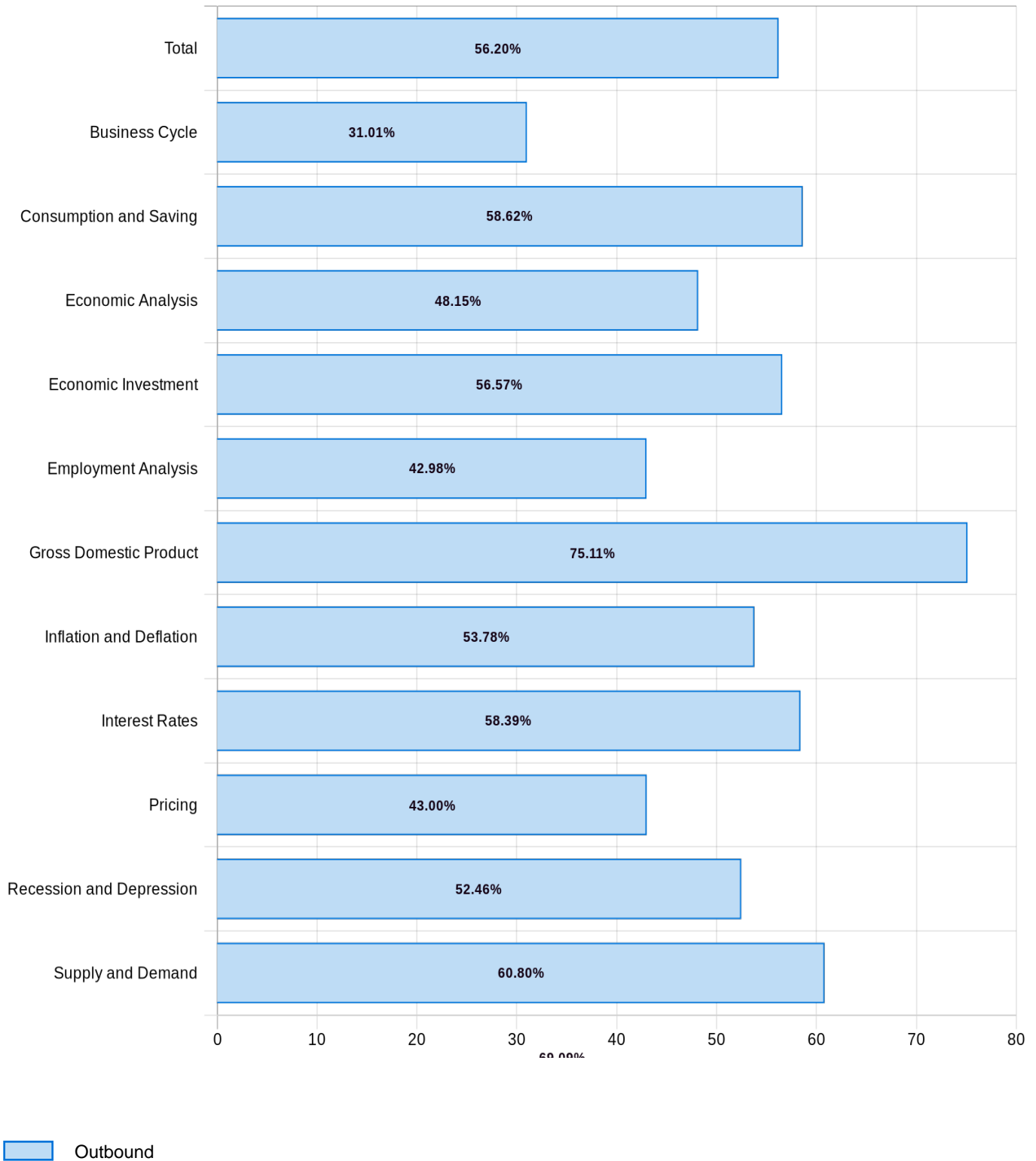
\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Economics - Comparison of Inbound Exam Results with Outbound Exam Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

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### Economics - Assessment Summary

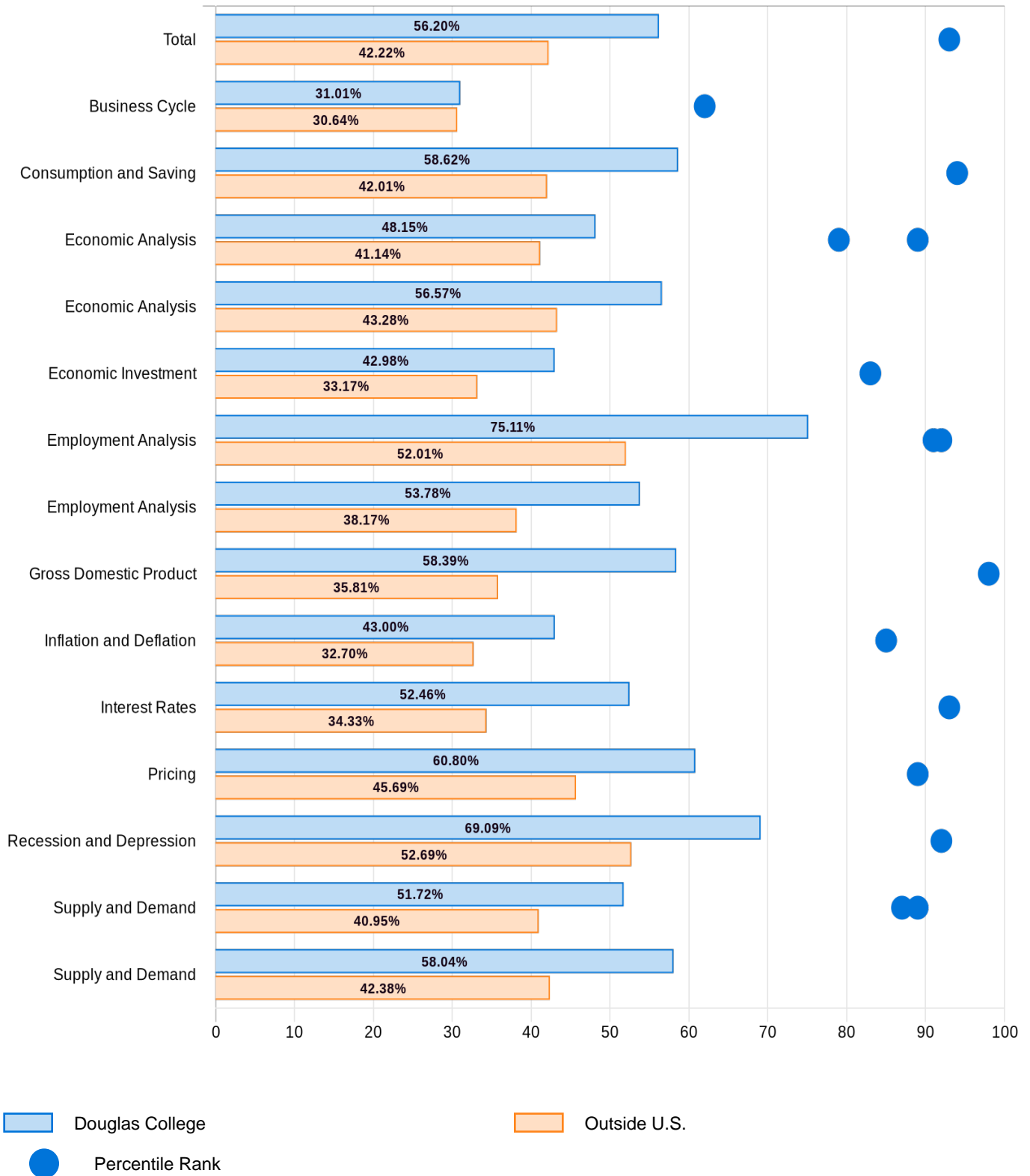
<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	56.20%
Mean Completion Time	9.46 minutes
Percentile Rank	93
Max Score	100.00%
Min Score	0.00%
Standard Deviation	19.20

<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	6,030
Total Score	42.23%
Mean Completion Time	10.05 minutes
Standard Deviation	9.26

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Economics - Outbound Results Comparison to Aggregate Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Economics - Outbound Exam Summary

Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Business Cycle	129	31.01%	2,062	30.65%	*62	23.89%	27.27%	32.07%	41.38%
Consumption and Saving	116	58.62%	2,340	42.01%	*94	36.11%	38.89%	45.17%	52.69%
Economic Analysis	162	48.15%	3,183	41.14%	*79	34.85%	38.46%	43.59%	51.39%
Economic Analysis	274	56.57%	6,255	43.28%	*89	35.82%	42.00%	46.57%	54.05%
Economic Investment	114	42.98%	2,195	33.17%	*83	25.16%	29.60%	37.04%	43.93%
Employment Analysis	229	75.11%	6,200	52.01%	*92	39.02%	48.91%	58.22%	69.05%
Employment Analysis	119	53.78%	2,166	38.18%	*91	32.37%	35.69%	38.91%	48.29%
Gross Domestic Product	137	58.39%	2,570	35.81%	*98	26.87%	34.17%	39.14%	46.67%
Inflation and Deflation	100	43.00%	2,127	32.70%	*85	23.31%	30.65%	35.38%	42.67%
Interest Rates	122	52.46%	2,445	34.33%	*93	27.78%	32.43%	35.74%	42.47%
Pricing	324	60.80%	7,480	45.69%	*89	38.00%	44.06%	48.08%	55.48%
Recession and Depression	110	69.09%	2,049	52.69%	*92	42.17%	50.00%	59.38%	64.71%
Supply and Demand	116	51.72%	2,304	40.95%	*87	33.33%	39.07%	42.84%	50.00%
Supply and Demand	398	58.04%	10,067	42.38%	*89	33.90%	39.58%	46.41%	54.12%
Summary	2450	56.20%	53,443	42.23%	93	35.67%	40.33%	43.67%	51.33%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

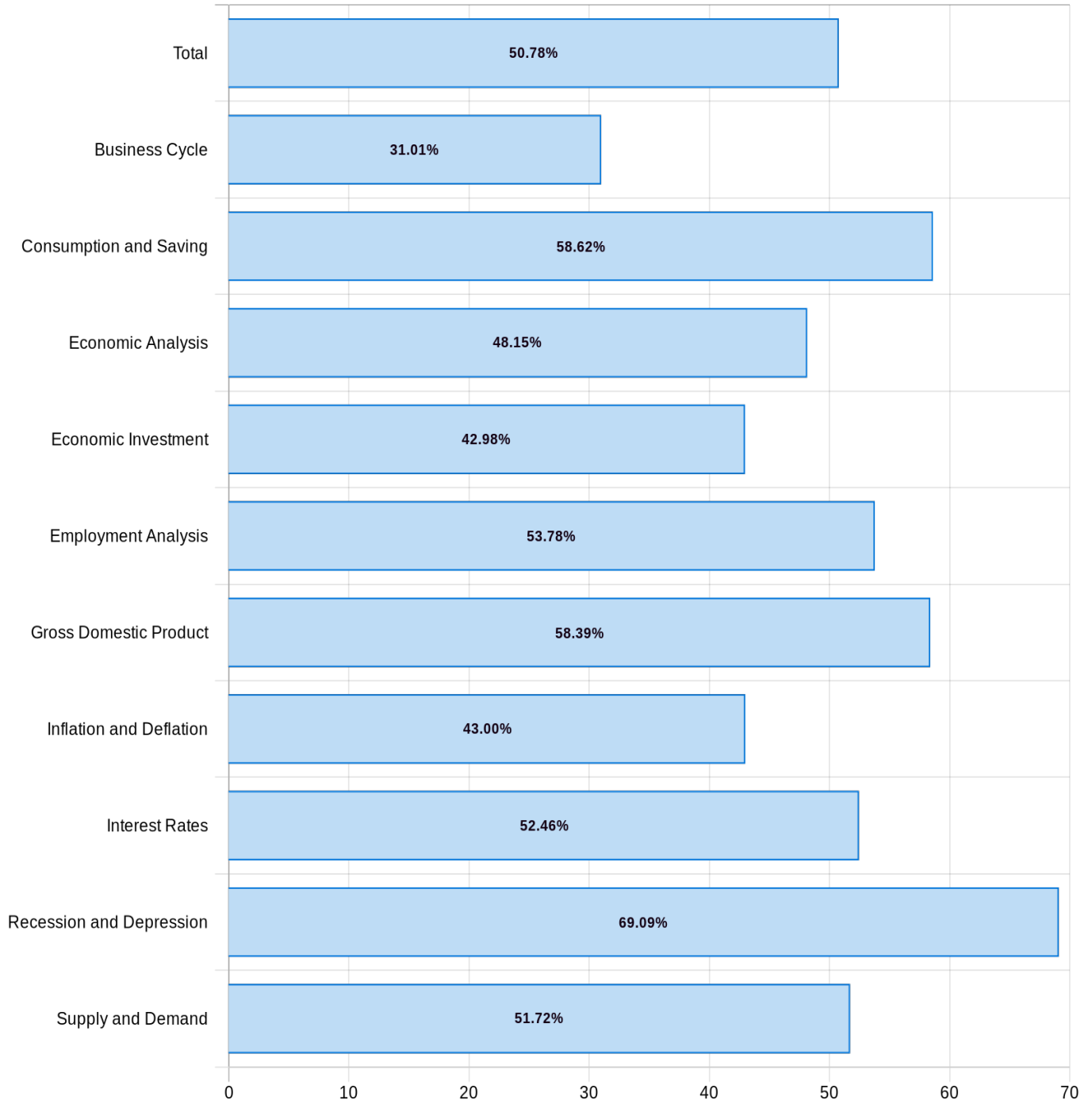
\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Economics: Macroeconomics - Comparison of Inbound Exam Results with Outbound Exam Results



Outbound

## Internal Analysis Report — Douglas College

### Bachelors Business GBE

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#### Economics: Macroeconomics - Assessment Summary

<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	50.78%
Mean Completion Time	5.08 minutes
Percentile Rank	90
Max Score	100.00%
Min Score	0.00%
Standard Deviation	24.72

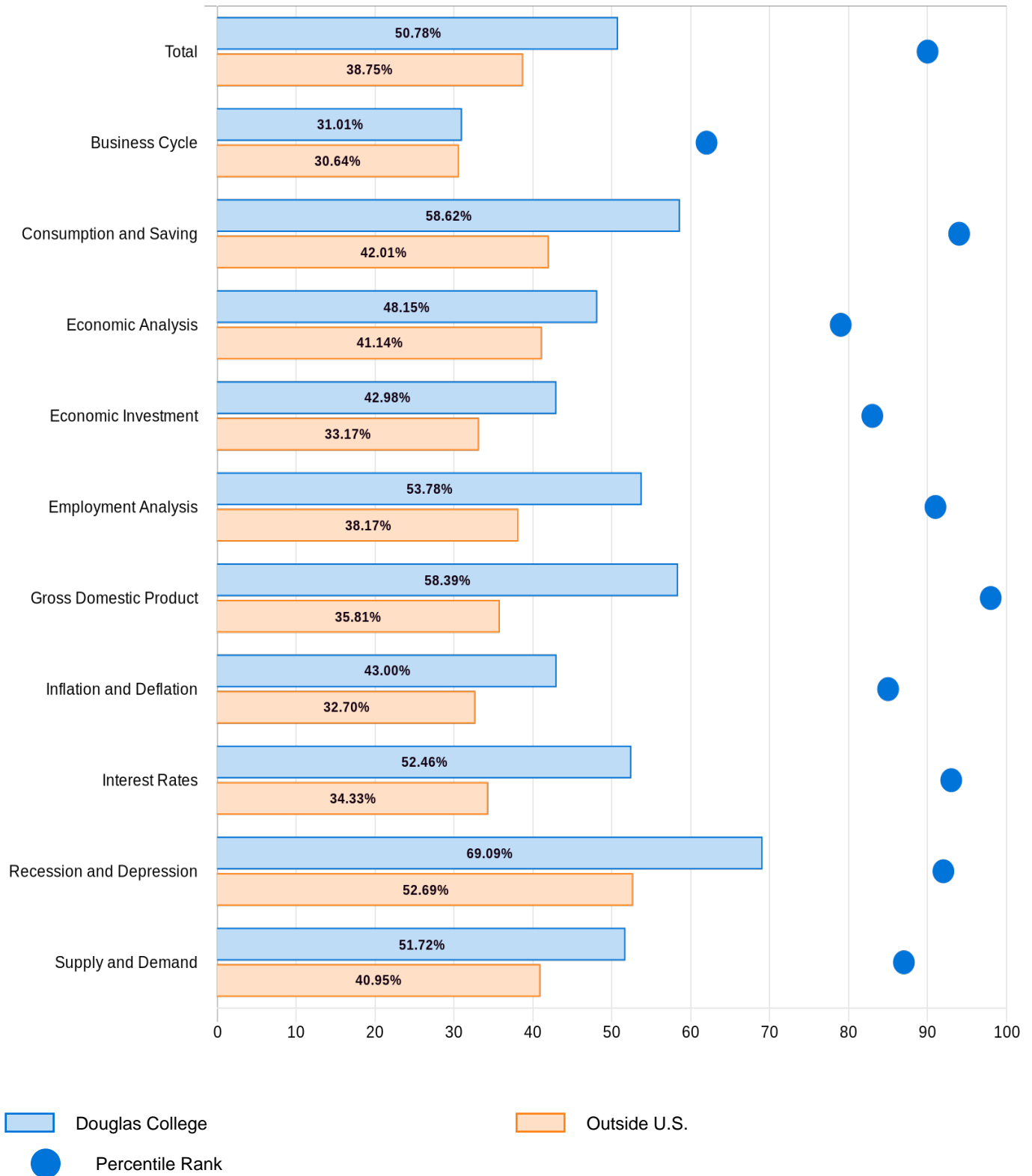
<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	6,030
Total Score	38.75%
Mean Completion Time	5.27 minutes
Standard Deviation	8.84



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Economics: Macroeconomics - Outbound Results Comparison to Aggregate Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Economics: Macroeconomics - Outbound Exam Summary

Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Business Cycle	129	31.01%	2,062	30.65%	*62	23.89%	27.27%	32.07%	41.38%
Consumption and Saving	116	58.62%	2,340	42.01%	*94	36.11%	38.89%	45.17%	52.69%
Economic Analysis	162	48.15%	3,183	41.14%	*79	34.85%	38.46%	43.59%	51.39%
Economic Investment	114	42.98%	2,195	33.17%	*83	25.16%	29.60%	37.04%	43.93%
Employment Analysis	119	53.78%	2,166	38.18%	*91	32.37%	35.69%	38.91%	48.29%
Gross Domestic Product	137	58.39%	2,570	35.81%	*98	26.87%	34.17%	39.14%	46.67%
Inflation and Deflation	100	43.00%	2,127	32.70%	*85	23.31%	30.65%	35.38%	42.67%
Interest Rates	122	52.46%	2,445	34.33%	*93	27.78%	32.43%	35.74%	42.47%
Recession and Depression	110	69.09%	2,049	52.69%	*92	42.17%	50.00%	59.38%	64.71%
Supply and Demand	116	51.72%	2,304	40.95%	*87	33.33%	39.07%	42.84%	50.00%
Summary	1225	50.78%	23,441	38.75%	90	33.10%	35.92%	41.10%	46.00%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

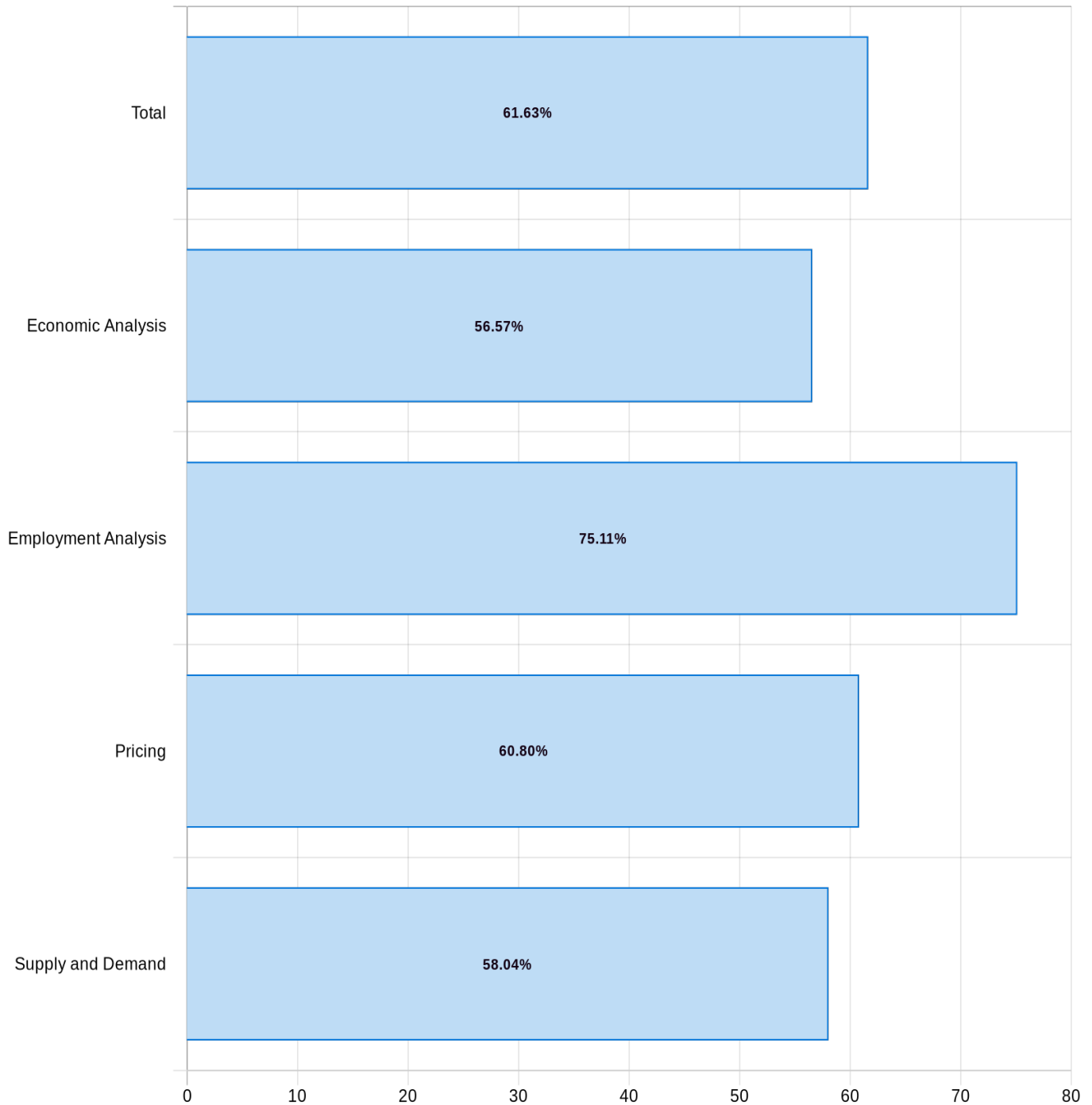
\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Economics: Microeconomics - Comparison of Inbound Exam Results with Outbound Exam Results



Outbound

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

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### Economics: Microeconomics - Assessment Summary

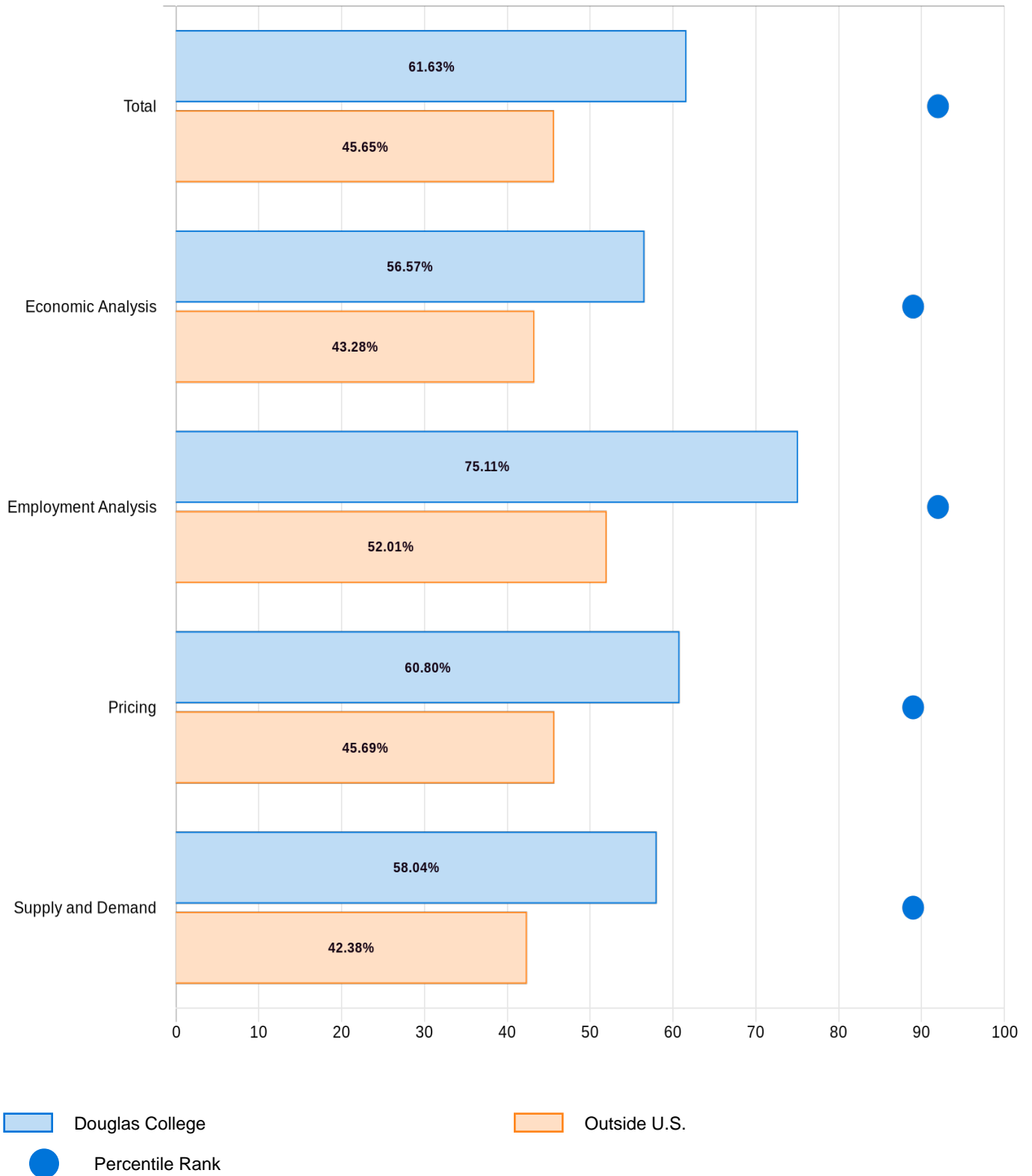
<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	61.63%
Mean Completion Time	4.38 minutes
Percentile Rank	92
Max Score	100.00%
Min Score	0.00%
Standard Deviation	24.24

<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	6,030
Total Score	45.65%
Mean Completion Time	4.78 minutes
Standard Deviation	10.65

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Economics: Microeconomics - Outbound Results Comparison to Aggregate Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Economics: Microeconomics - Outbound Exam Summary

Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Economic Analysis	274	56.57%	6,255	43.28%	*89	35.82%	42.00%	46.57%	54.05%
Employment Analysis	229	75.11%	6,200	52.01%	*92	39.02%	48.91%	58.22%	69.05%
Pricing	324	60.80%	7,480	45.69%	*89	38.00%	44.06%	48.08%	55.48%
Supply and Demand	398	58.04%	10,067	42.38%	*89	33.90%	39.58%	46.41%	54.12%
Summary	1225	61.63%	30,002	45.65%	92	38.00%	44.00%	48.67%	56.00%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

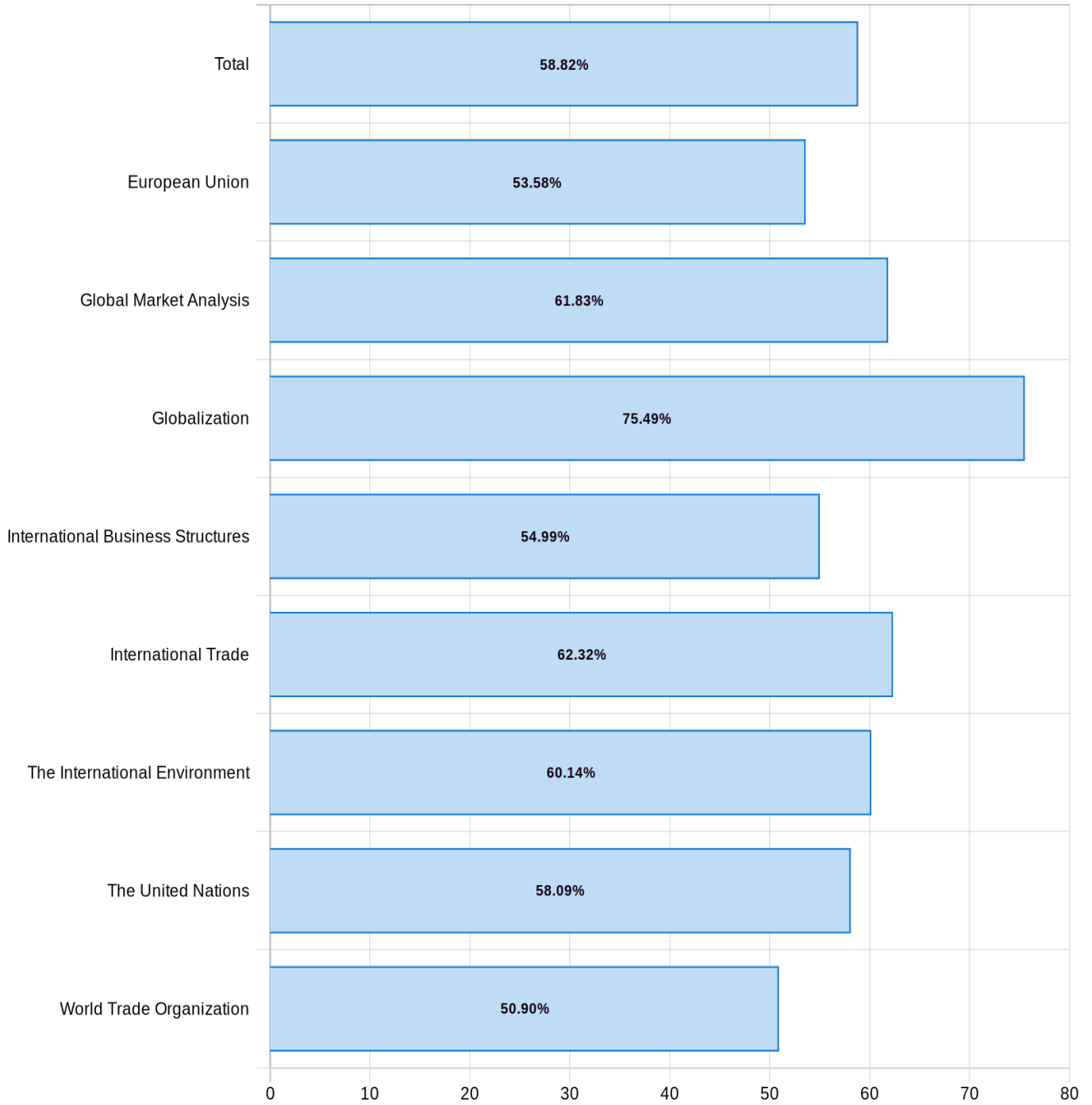
\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Global Dimensions of Business - Comparison of Inbound Exam Results with Outbound Exam Results



Outbound

## Internal Analysis Report — Douglas College

### Bachelors Business GBE

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#### Global Dimensions of Business - Assessment Summary

<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	58.82%
Mean Completion Time	8.00 minutes
Percentile Rank	67
Max Score	100.00%
Min Score	20.00%
Standard Deviation	19.14

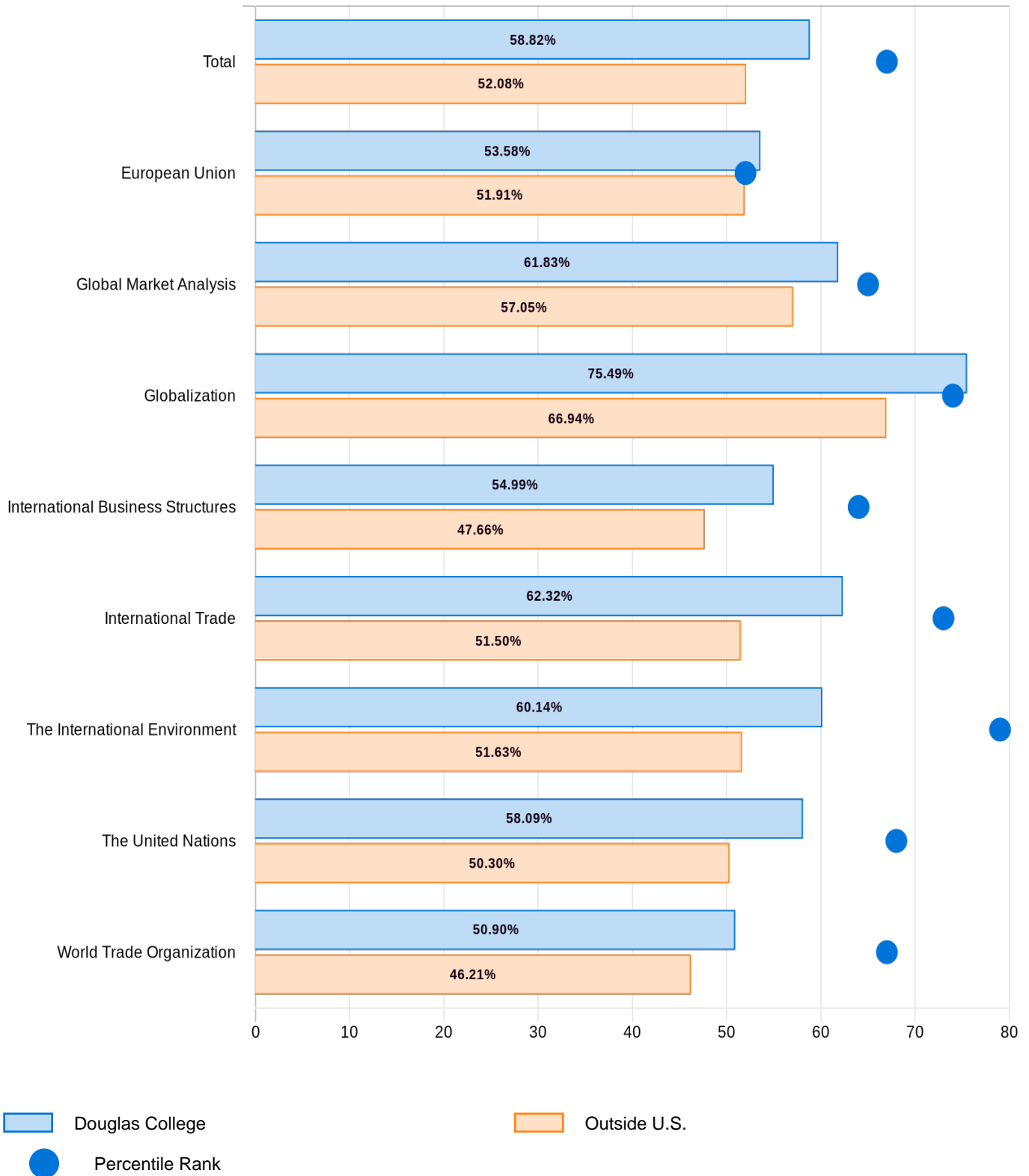
<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	6,960
Total Score	52.08%
Mean Completion Time	10.42 minutes
Standard Deviation	10.53



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Global Dimensions of Business - Outbound Results Comparison to Aggregate Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Global Dimensions of Business - Outbound Exam Summary

Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
European Union	349	53.58%	8,320	51.91%	*52	44.19%	51.79%	57.14%	64.41%
Global Market Analysis	262	61.83%	6,317	57.05%	*65	50.00%	56.99%	61.54%	69.07%
Globalization	257	75.49%	7,417	66.94%	*74	59.89%	66.67%	72.69%	79.46%
International Business Structures	631	54.99%	16,123	47.66%	*64	37.18%	44.11%	54.99%	62.52%
International Trade	207	62.32%	5,556	51.50%	*73	40.00%	52.13%	58.76%	67.41%
The International Environment	281	60.14%	8,140	51.63%	*79	45.10%	50.00%	55.56%	62.60%
The United Nations	241	58.09%	6,389	50.30%	*68	40.00%	50.00%	56.86%	64.44%
World Trade Organization	222	50.90%	5,710	46.21%	*67	37.09%	45.24%	50.00%	59.47%
Summary	2450	58.82%	63,972	52.08%	67	43.94%	51.67%	58.02%	62.67%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

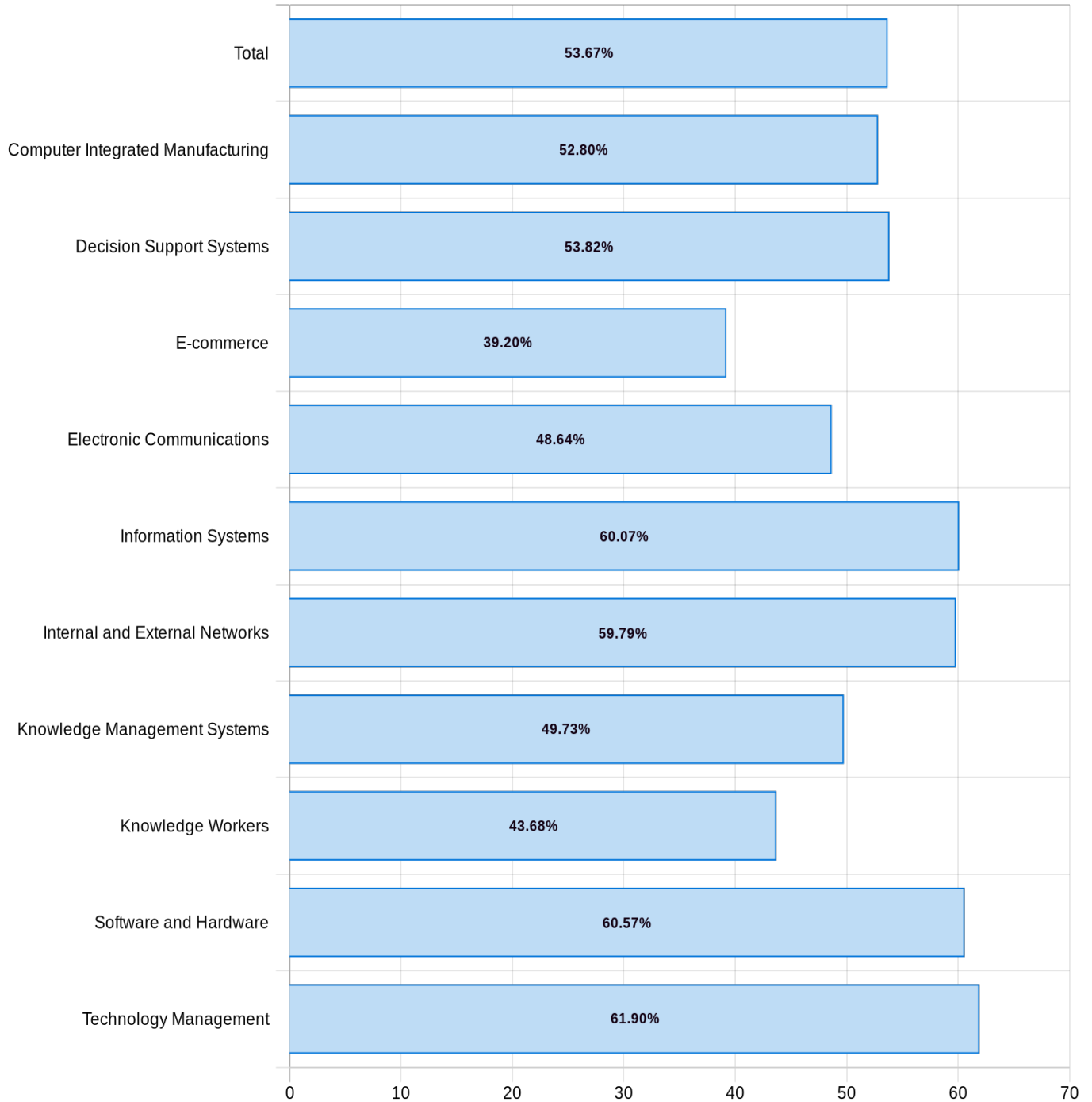
\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Information Management Systems - Comparison of Inbound Exam Results with Outbound Exam Results



Outbound

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

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### Information Management Systems - Assessment Summary

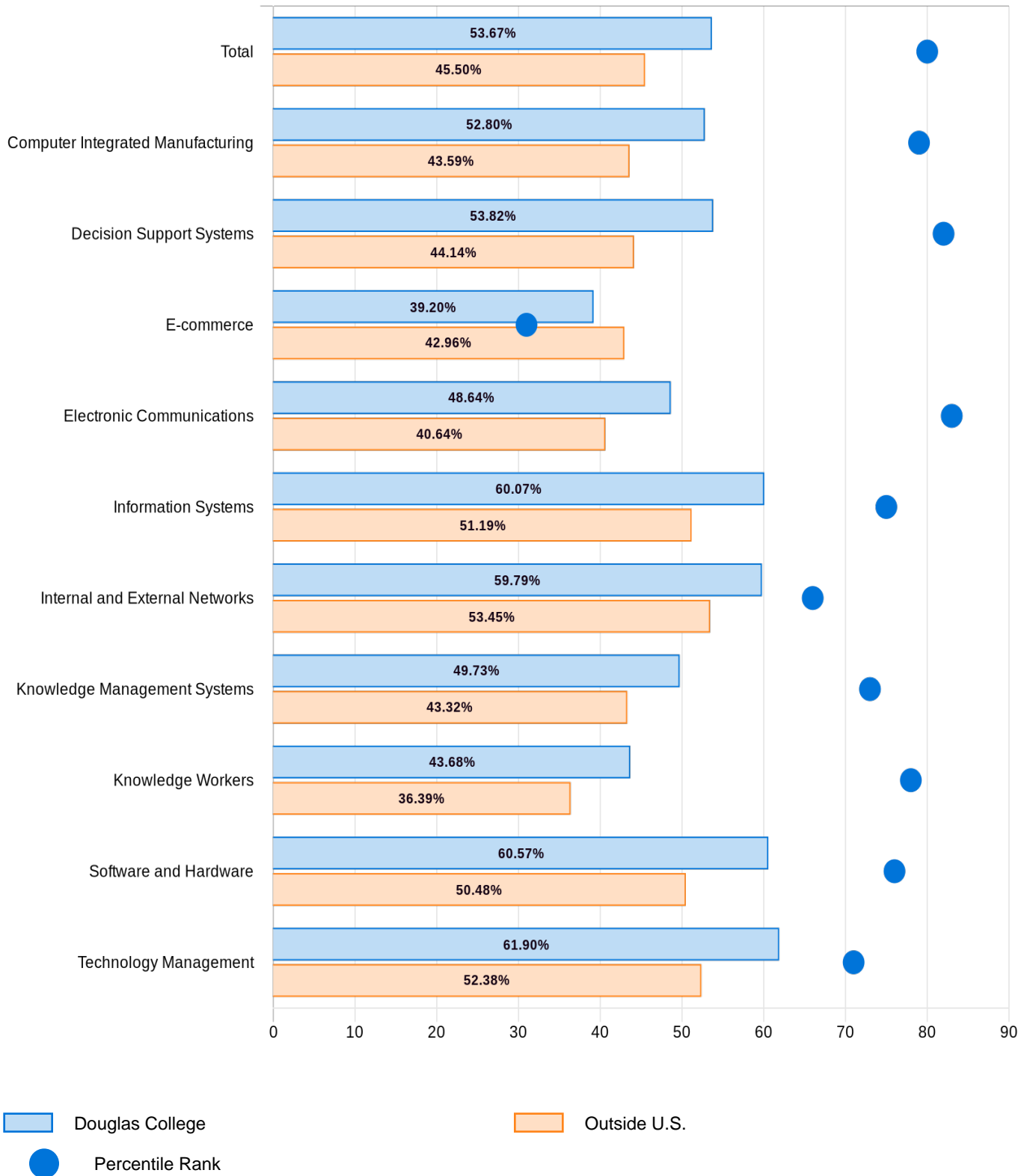
<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	53.67%
Mean Completion Time	8.01 minutes
Percentile Rank	80
Max Score	100.00%
Min Score	10.00%
Standard Deviation	18.45

<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	7,920
Total Score	45.51%
Mean Completion Time	10.06 minutes
Standard Deviation	7.98

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Information Management Systems - Outbound Results Comparison to Aggregate Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Information Management Systems - Outbound Exam Summary

Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Computer Integrated Manufacturing	214	52.80%	5,917	43.59%	*79	35.84%	42.82%	47.68%	54.58%
Decision Support Systems	537	53.82%	15,503	44.14%	*82	37.50%	42.69%	48.15%	54.52%
E-commerce	176	39.20%	4,923	42.97%	*31	36.36%	42.50%	46.15%	52.54%
Electronic Communications	220	48.64%	5,935	40.64%	*83	33.90%	39.49%	44.18%	51.25%
Information Systems	278	60.07%	8,102	51.19%	*75	41.81%	48.84%	55.75%	64.55%
Internal and External Networks	194	59.79%	5,394	53.45%	*66	44.14%	50.00%	59.46%	70.07%
Knowledge Management Systems	185	49.73%	5,321	43.32%	*73	36.30%	42.22%	47.52%	52.97%
Knowledge Workers	190	43.68%	5,496	36.39%	*78	28.21%	35.11%	40.36%	47.21%
Software and Hardware	246	60.57%	7,021	50.48%	*76	43.48%	50.98%	56.76%	63.41%
Technology Management	210	61.90%	5,345	52.38%	*71	41.46%	49.74%	59.51%	66.67%
Summary	2450	53.67%	68,957	45.51%	80	39.56%	43.57%	48.33%	55.00%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

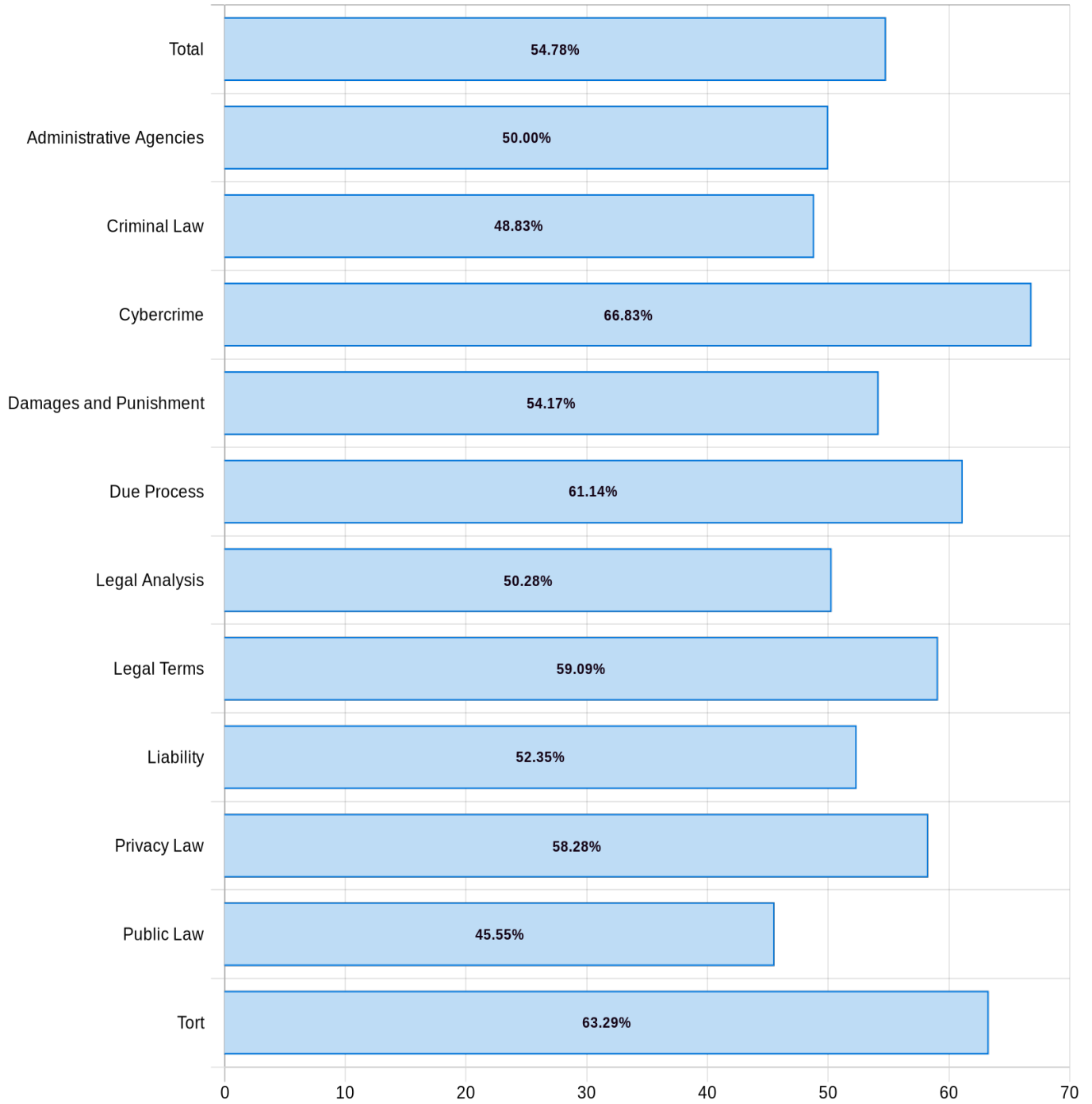
\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Legal Environment of Business - Comparison of Inbound Exam Results with Outbound Exam Results



Outbound

## Internal Analysis Report — Douglas College

### Bachelors Business GBE

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#### Legal Environment of Business - Assessment Summary

<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	54.78%
Mean Completion Time	8.87 minutes
Percentile Rank	91
Max Score	100.00%
Min Score	0.00%
Standard Deviation	18.43

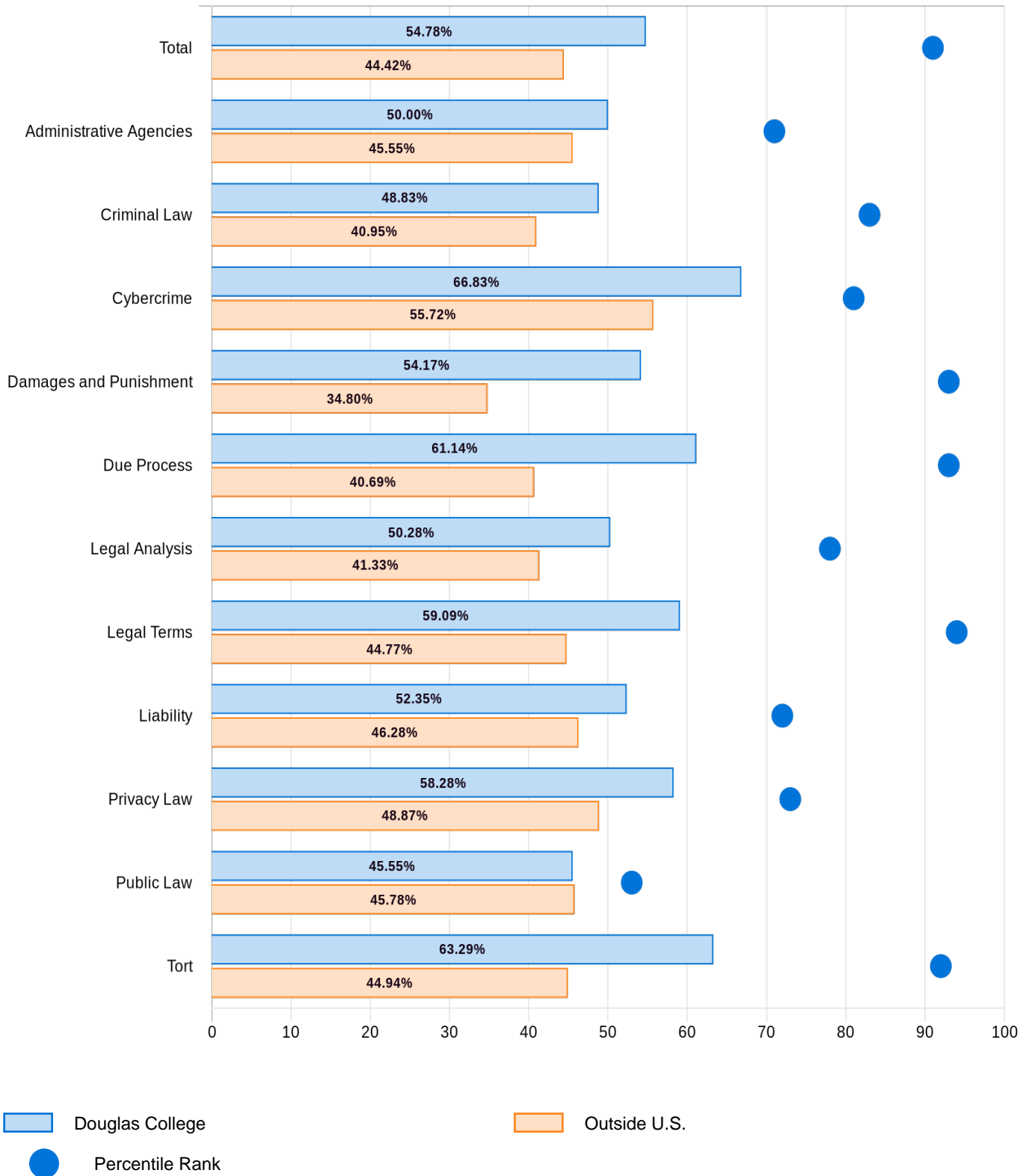
<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	4,560
Total Score	44.42%
Mean Completion Time	9.22 minutes
Standard Deviation	7.65



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Legal Environment of Business - Outbound Results Comparison to Aggregate Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Legal Environment of Business - Outbound Exam Summary

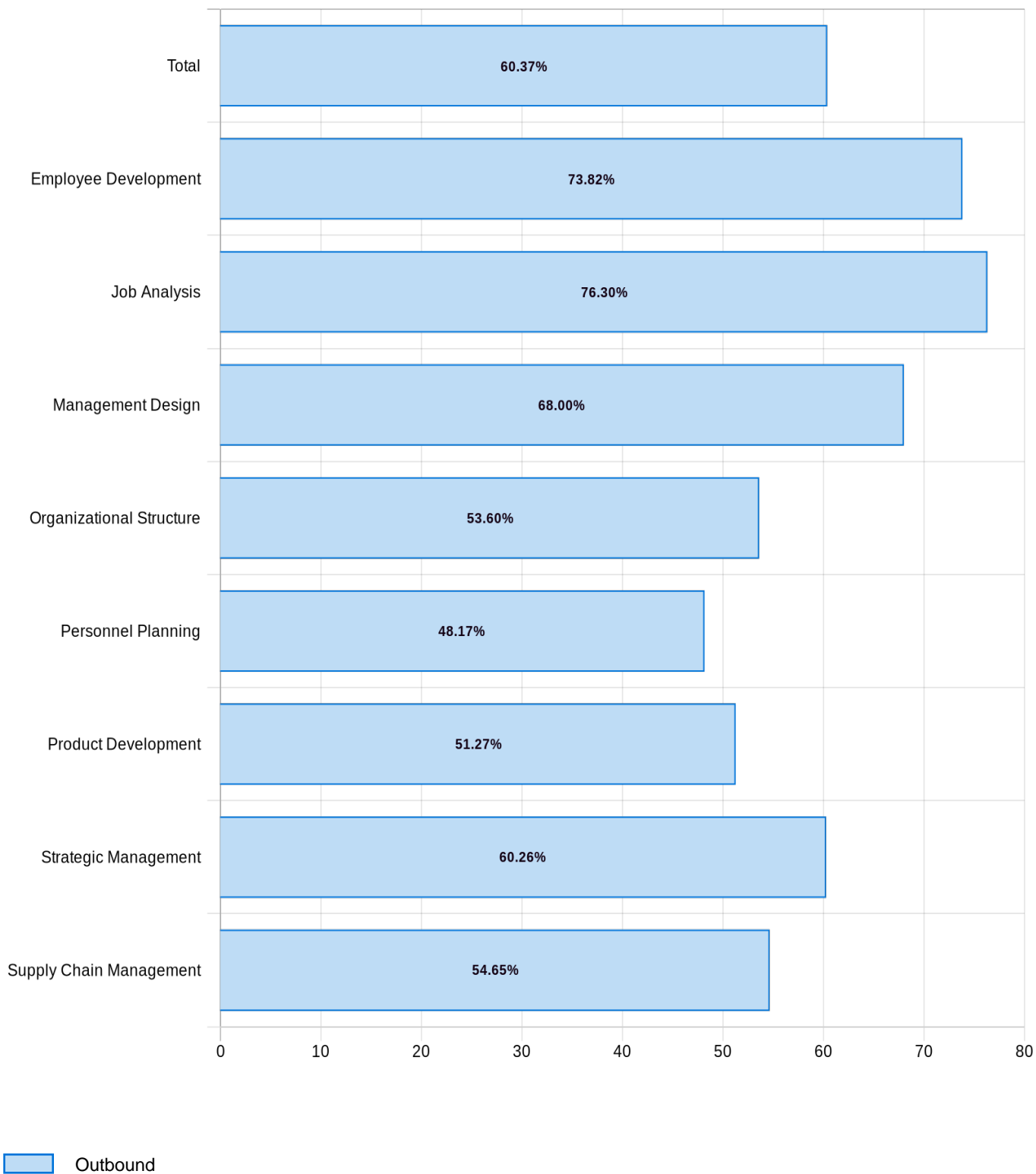
Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Administrative Agencies	200	50.00%	2,867	45.55%	*71	38.69%	44.18%	48.73%	55.52%
Criminal Law	426	48.83%	7,010	40.95%	*83	33.33%	40.66%	44.70%	50.00%
Cybercrime	205	66.83%	3,339	55.72%	*81	48.78%	53.68%	62.46%	70.28%
Damages and Punishment	192	54.17%	3,400	34.80%	*93	26.83%	30.56%	38.64%	45.10%
Due Process	193	61.14%	3,298	40.69%	*93	32.52%	37.89%	43.84%	52.08%
Legal Analysis	181	50.28%	2,932	41.33%	*78	33.33%	39.75%	44.68%	52.78%
Legal Terms	22	59.09%	402	44.77%	*94	35.29%	40.47%	50.22%	54.22%
Liability	361	52.35%	5,788	46.28%	*72	40.00%	45.10%	50.00%	55.13%
Privacy Law	163	58.28%	2,705	48.87%	*73	36.17%	47.50%	55.48%	63.47%
Public Law	191	45.55%	2,822	45.78%	*53	38.31%	43.57%	50.17%	56.14%
Tort	316	63.29%	4,986	44.94%	*92	36.85%	41.78%	46.44%	56.66%
Summary	2450	54.78%	39,549	44.42%	91	39.31%	43.00%	46.38%	51.40%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

### Management - Comparison of Inbound Exam Results with Outbound Exam Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

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### Management - Assessment Summary

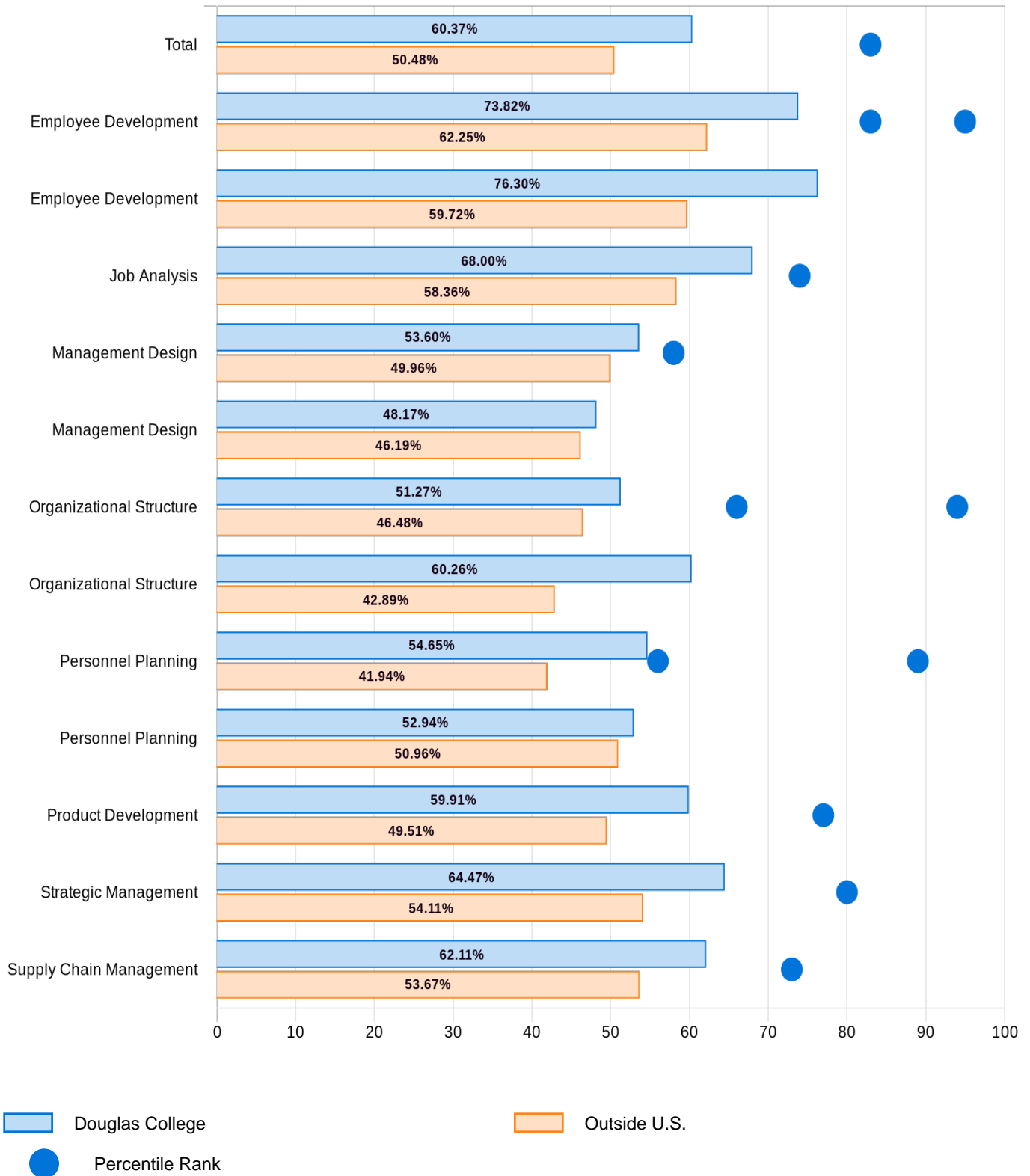
<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	60.37%
Mean Completion Time	7.72 minutes
Percentile Rank	83
Max Score	100.00%
Min Score	10.00%
Standard Deviation	18.56

<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	8,340
Total Score	50.48%
Mean Completion Time	10.53 minutes
Standard Deviation	9.30

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Management - Outbound Results Comparison to Aggregate Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Management - Outbound Exam Summary

Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Employee Development	317	73.82%	9,050	62.25%	*83	55.08%	62.79%	68.22%	75.00%
Employee Development	135	76.30%	4,610	59.72%	*95	52.78%	59.46%	64.71%	70.49%
Job Analysis	175	68.00%	4,990	58.37%	*74	48.53%	56.32%	63.98%	73.68%
Management Design	222	53.60%	6,262	49.96%	*58	43.18%	48.72%	54.55%	60.98%
Management Design	218	48.17%	6,766	46.19%	*58	34.04%	42.11%	51.22%	65.69%
Organizational Structure	158	51.27%	5,009	46.48%	*66	38.89%	45.46%	49.89%	58.33%
Organizational Structure	151	60.26%	4,635	42.89%	*94	35.50%	41.36%	47.06%	53.96%
Personnel Planning	269	54.65%	8,122	41.94%	*89	34.78%	40.00%	45.65%	52.94%
Personnel Planning	204	52.94%	5,776	50.96%	*56	42.50%	48.82%	56.41%	62.16%
Product Development	222	59.91%	6,098	49.51%	*77	40.54%	46.56%	54.90%	63.73%
Strategic Management	152	64.47%	4,497	54.11%	*80	47.33%	52.94%	58.04%	66.67%
Supply Chain Management	227	62.11%	7,164	53.67%	*73	44.59%	52.47%	59.18%	67.44%
Summary	2450	60.37%	72,979	50.48%	83	43.67%	48.74%	54.33%	60.95%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

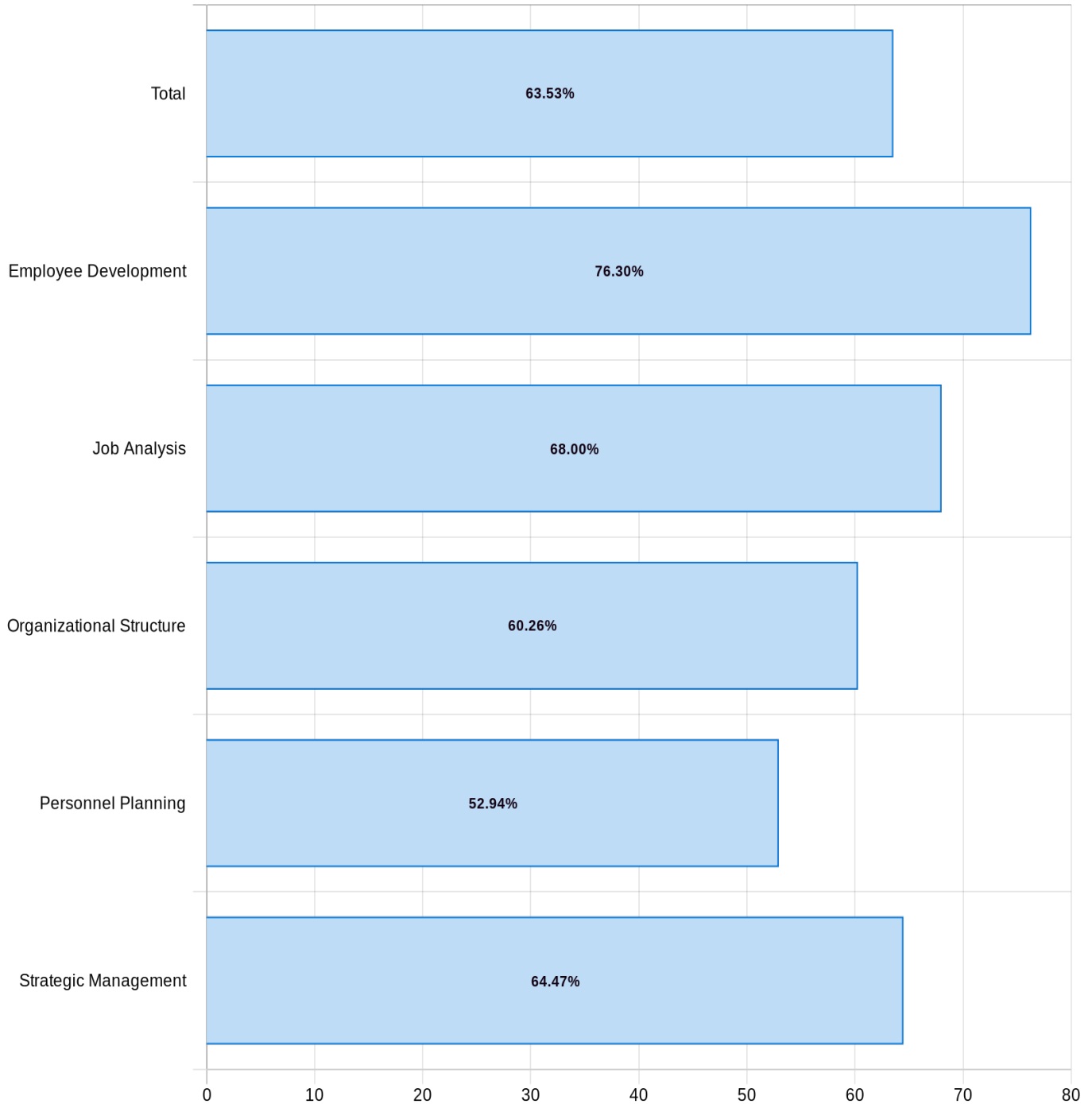
\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Management: Human Resource Management - Comparison of Inbound Exam Results with Outbound Exam Results



Outbound

## Internal Analysis Report — Douglas College

### Bachelors Business GBE

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#### Management: Human Resource Management - Assessment Summary

<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	63.53%
Mean Completion Time	2.74 minutes
Percentile Rank	89
Max Score	100.00%
Min Score	0.00%
Standard Deviation	28.30

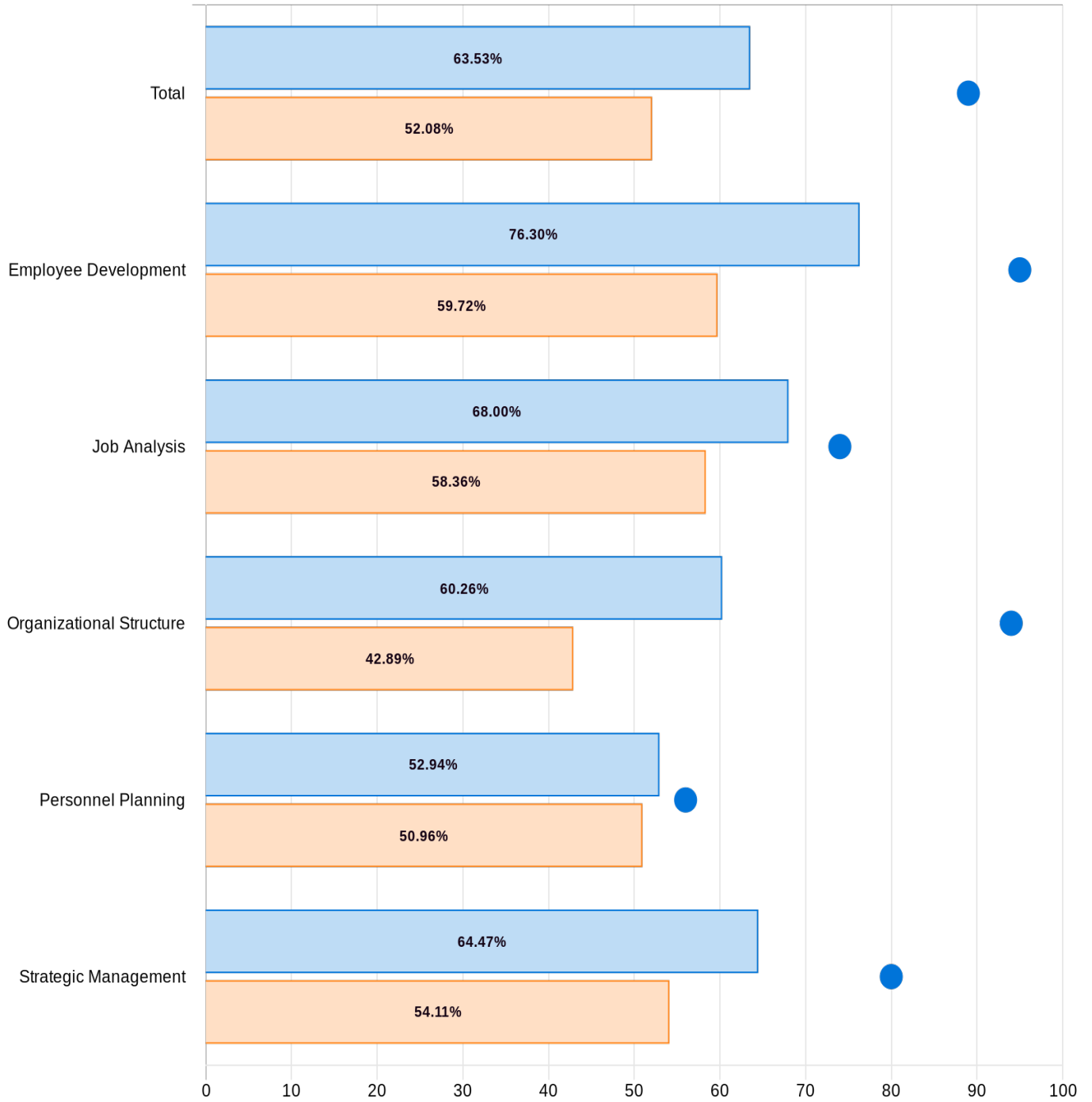
<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	8,340
Total Score	52.08%
Mean Completion Time	3.69 minutes
Standard Deviation	9.54



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Management: Human Resource Management - Outbound Results Comparison to Aggregate Results



■ Douglas College  
● Percentile Rank

■ Outside U.S.

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Management: Human Resource Management - Outbound Exam Summary

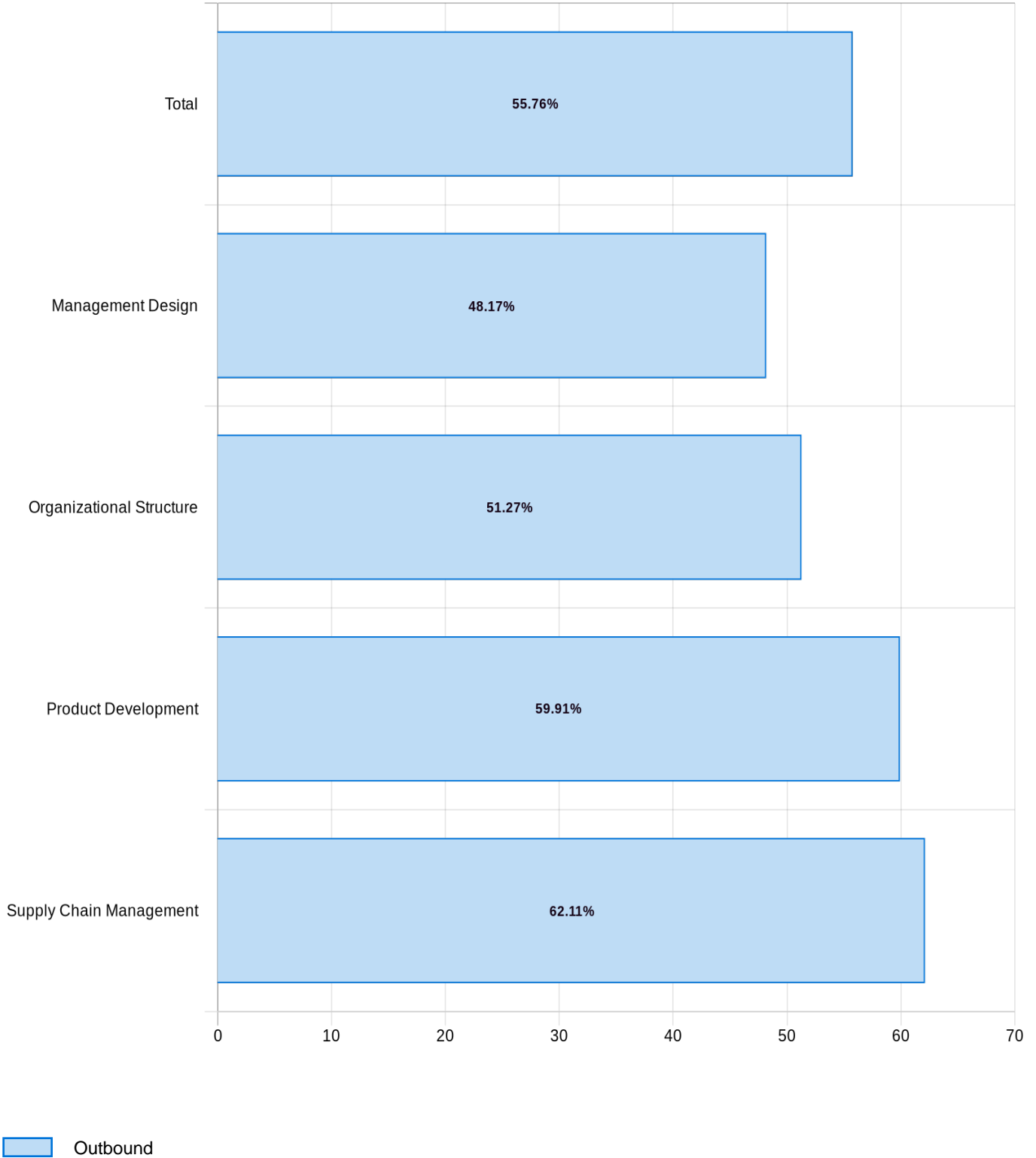
Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Employee Development	135	76.30%	4,610	59.72%	*95	52.78%	59.46%	64.71%	70.49%
Job Analysis	175	68.00%	4,990	58.37%	*74	48.53%	56.32%	63.98%	73.68%
Organizational Structure	151	60.26%	4,635	42.89%	*94	35.50%	41.36%	47.06%	53.96%
Personnel Planning	204	52.94%	5,776	50.96%	*56	42.50%	48.82%	56.41%	62.16%
Strategic Management	152	64.47%	4,497	54.11%	*80	47.33%	52.94%	58.04%	66.67%
Summary	817	63.53%	24,508	52.08%	89	45.70%	50.52%	55.69%	62.38%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

Management: Operations/Production Management - Comparison of Inbound Exam Results with Outbound Exam Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

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### Management: Operations/Production Management - Assessment Summary

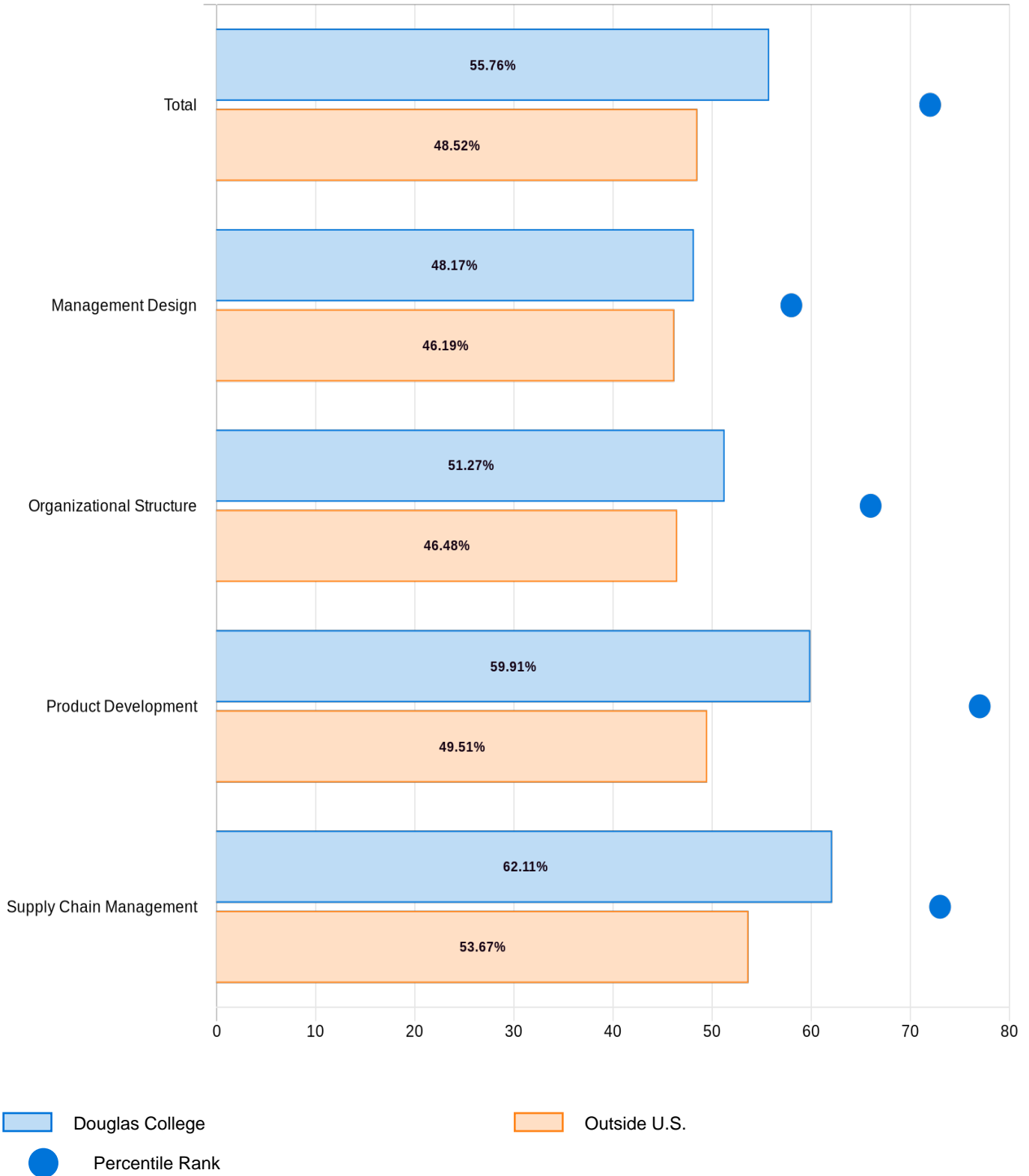
<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	55.76%
Mean Completion Time	2.47 minutes
Percentile Rank	72
Max Score	100.00%
Min Score	0.00%
Standard Deviation	27.54

<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	8,310
Total Score	48.52%
Mean Completion Time	3.42 minutes
Standard Deviation	11.76

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Management: Operations/Production Management - Outbound Results Comparison to Aggregate Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Management: Operations/Production Management - Outbound Exam Summary

Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Management Design	218	48.17%	6,766	46.19%	*58	34.04%	42.11%	51.22%	65.69%
Organizational Structure	158	51.27%	5,009	46.48%	*66	38.89%	45.46%	49.89%	58.33%
Product Development	222	59.91%	6,098	49.51%	*77	40.54%	46.56%	54.90%	63.73%
Supply Chain Management	227	62.11%	7,164	53.67%	*73	44.59%	52.47%	59.18%	67.44%
Summary	825	55.76%	25,037	48.52%	72	39.60%	45.43%	52.15%	63.10%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

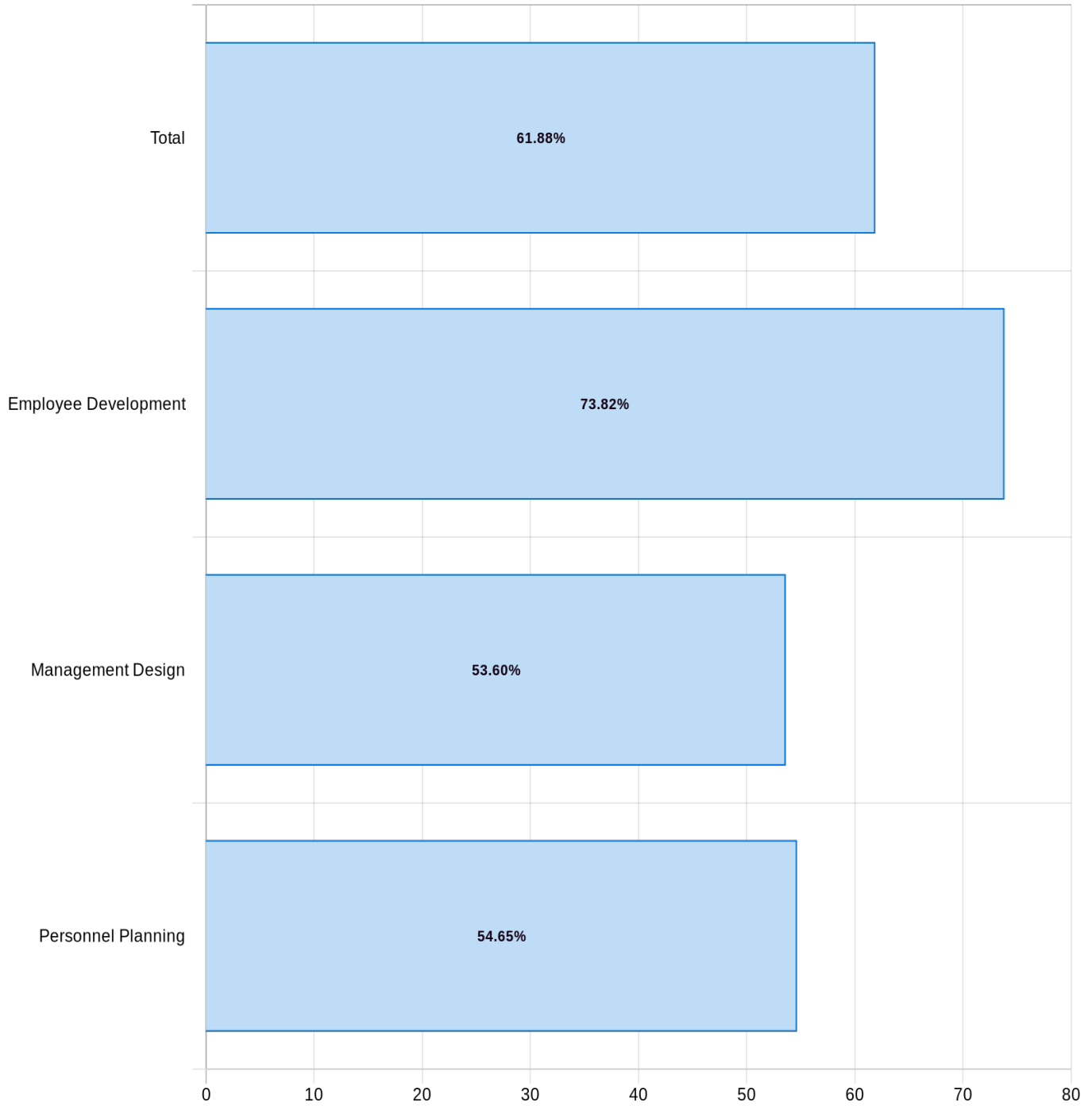
\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Management: Organizational Behavior - Comparison of Inbound Exam Results with Outbound Exam Results



Outbound

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

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### Management: Organizational Behavior - Assessment Summary

<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	61.88%
Mean Completion Time	2.51 minutes
Percentile Rank	87
Max Score	100.00%
Min Score	0.00%
Standard Deviation	28.54

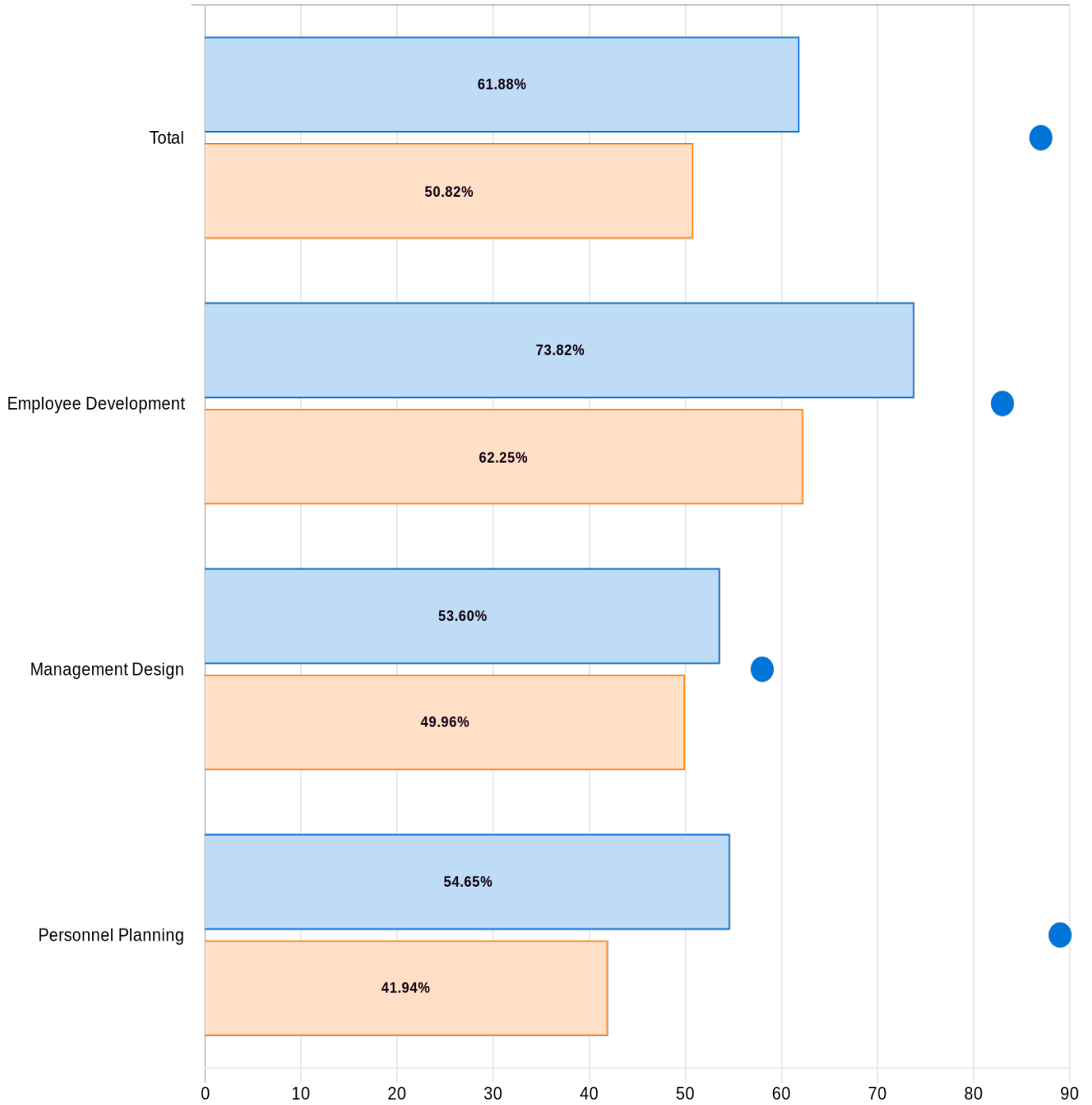
<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	8,310
Total Score	50.82%
Mean Completion Time	3.45 minutes
Standard Deviation	9.76



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Management: Organizational Behavior - Outbound Results Comparison to Aggregate Results



■ Douglas College  
● Percentile Rank

■ Outside U.S.

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Management: Organizational Behavior - Outbound Exam Summary

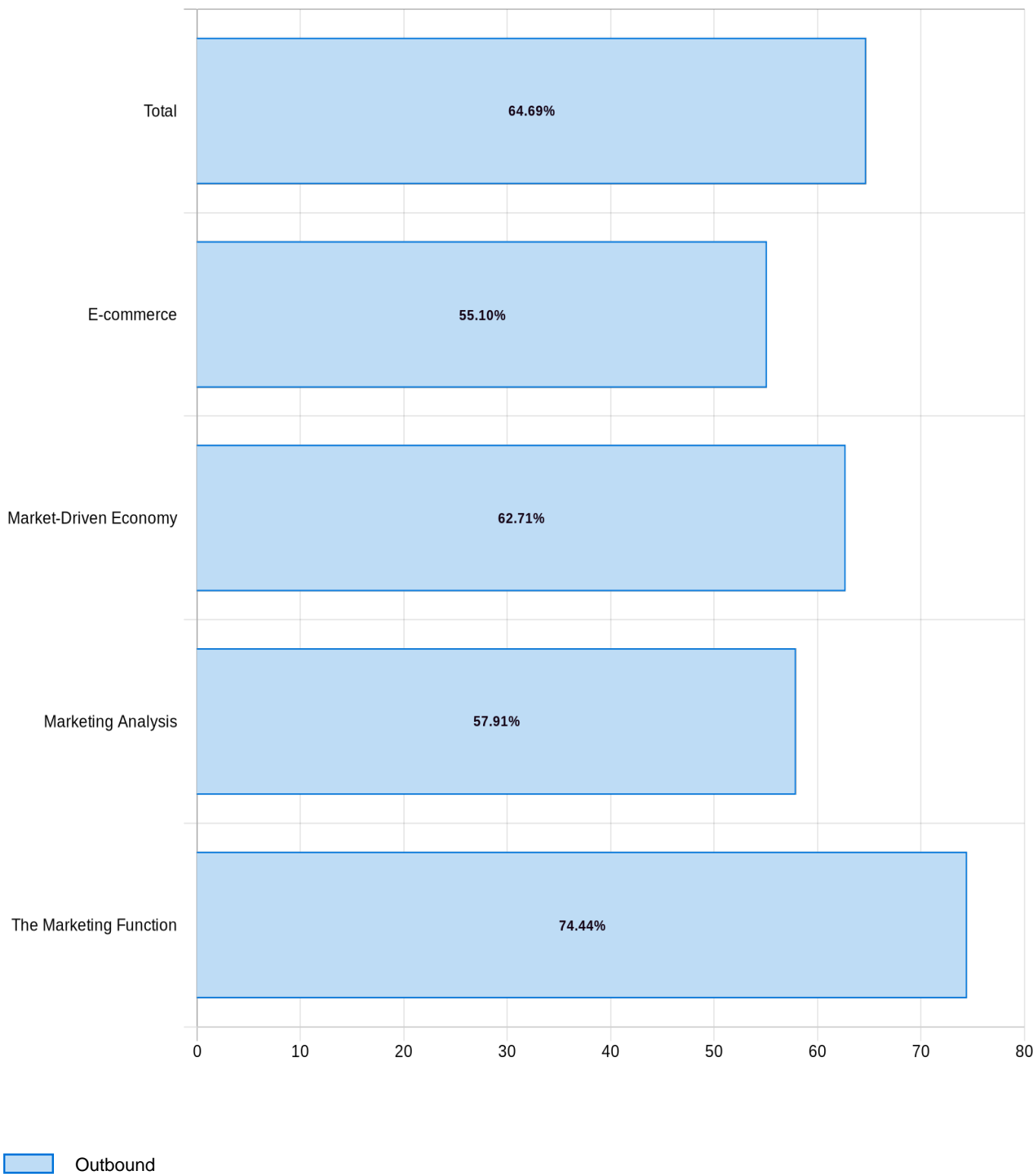
Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Employee Development	317	73.82%	9,050	62.25%	*83	55.08%	62.79%	68.22%	75.00%
Management Design	222	53.60%	6,262	49.96%	*58	43.18%	48.72%	54.55%	60.98%
Personnel Planning	269	54.65%	8,122	41.94%	*89	34.78%	40.00%	45.65%	52.94%
Summary	808	61.88%	23,434	50.82%	87	44.33%	50.00%	55.33%	61.18%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

### Marketing - Comparison of Inbound Exam Results with Outbound Exam Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

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### Marketing - Assessment Summary

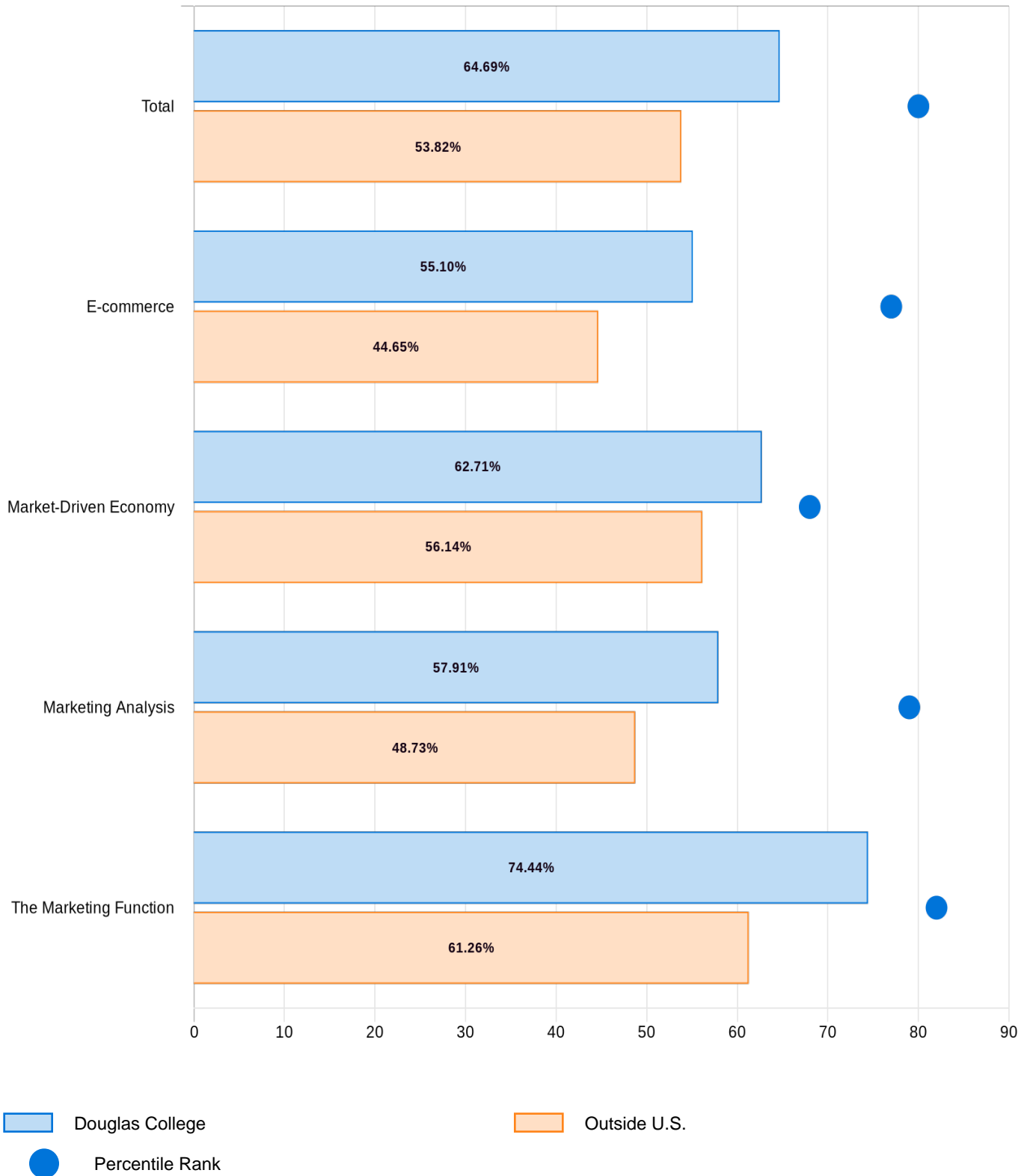
<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	64.69%
Mean Completion Time	7.22 minutes
Percentile Rank	80
Max Score	100.00%
Min Score	10.00%
Standard Deviation	18.10

<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	8,370
Total Score	53.82%
Mean Completion Time	9.14 minutes
Standard Deviation	11.08

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Marketing - Outbound Results Comparison to Aggregate Results



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Marketing - Outbound Exam Summary

Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
E-commerce	392	55.10%	10,934	44.65%	*77	35.85%	42.11%	49.06%	58.30%
Market-Driven Economy	472	62.71%	14,892	56.14%	*68	46.47%	52.97%	61.26%	72.97%
Marketing Analysis	651	57.91%	19,447	48.73%	*79	41.40%	48.69%	53.42%	59.09%
The Marketing Function	935	74.44%	27,172	61.26%	*82	52.56%	59.49%	66.67%	76.13%
Summary	2450	64.69%	72,445	53.82%	80	45.84%	52.00%	58.00%	67.10%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

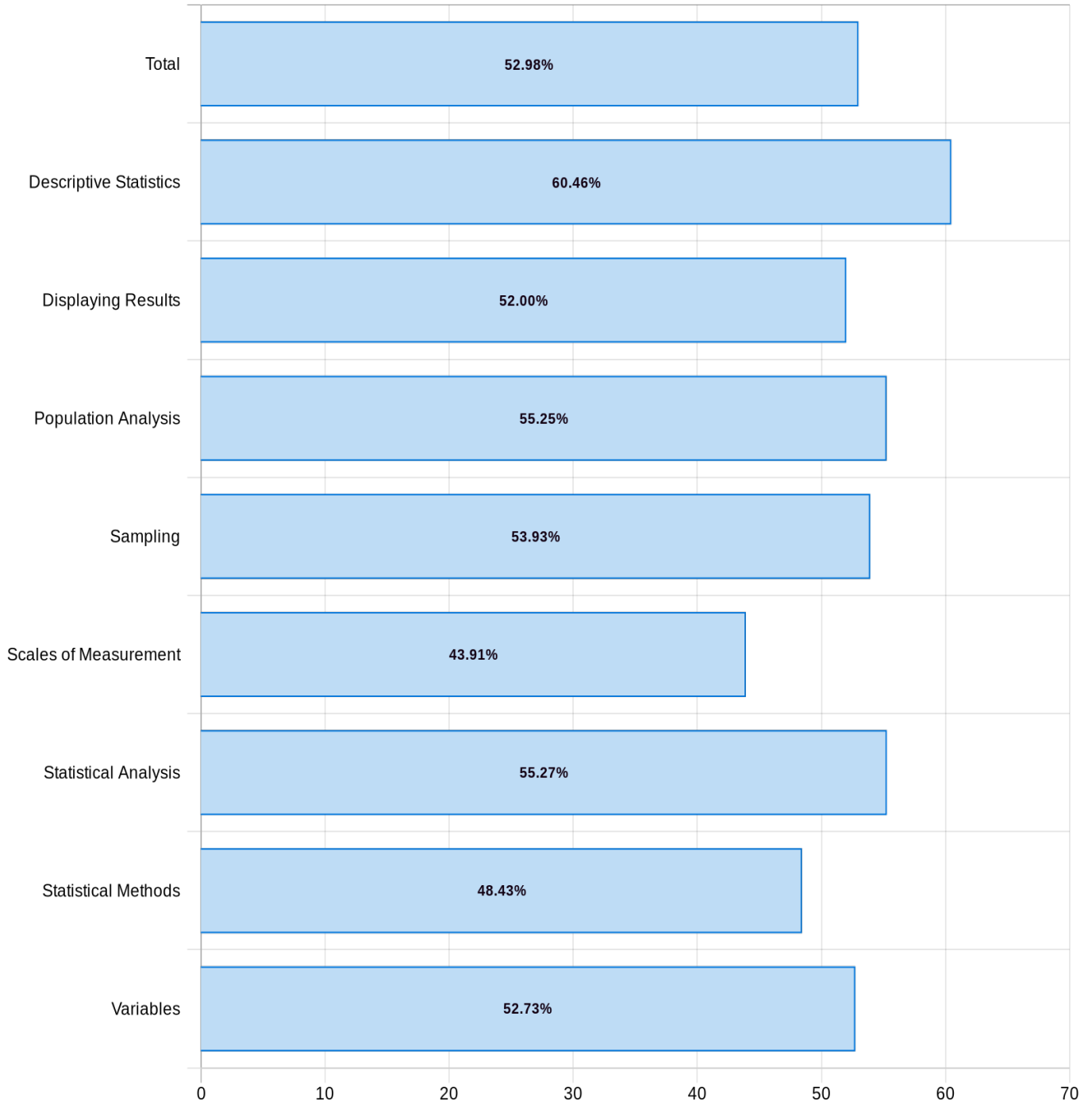
\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Quantitative Research Techniques and Statistics - Comparison of Inbound Exam Results with Outbound Exam Results



Outbound

# Internal Analysis Report — Douglas College

## Bachelors Business GBE

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### Quantitative Research Techniques and Statistics - Assessment Summary

<b>Douglas College</b>	<b>Outbound</b>
Sample Size	245
Total Score	52.98%
Mean Completion Time	8.24 minutes
Percentile Rank	90
Max Score	100.00%
Min Score	0.00%
Standard Deviation	19.28

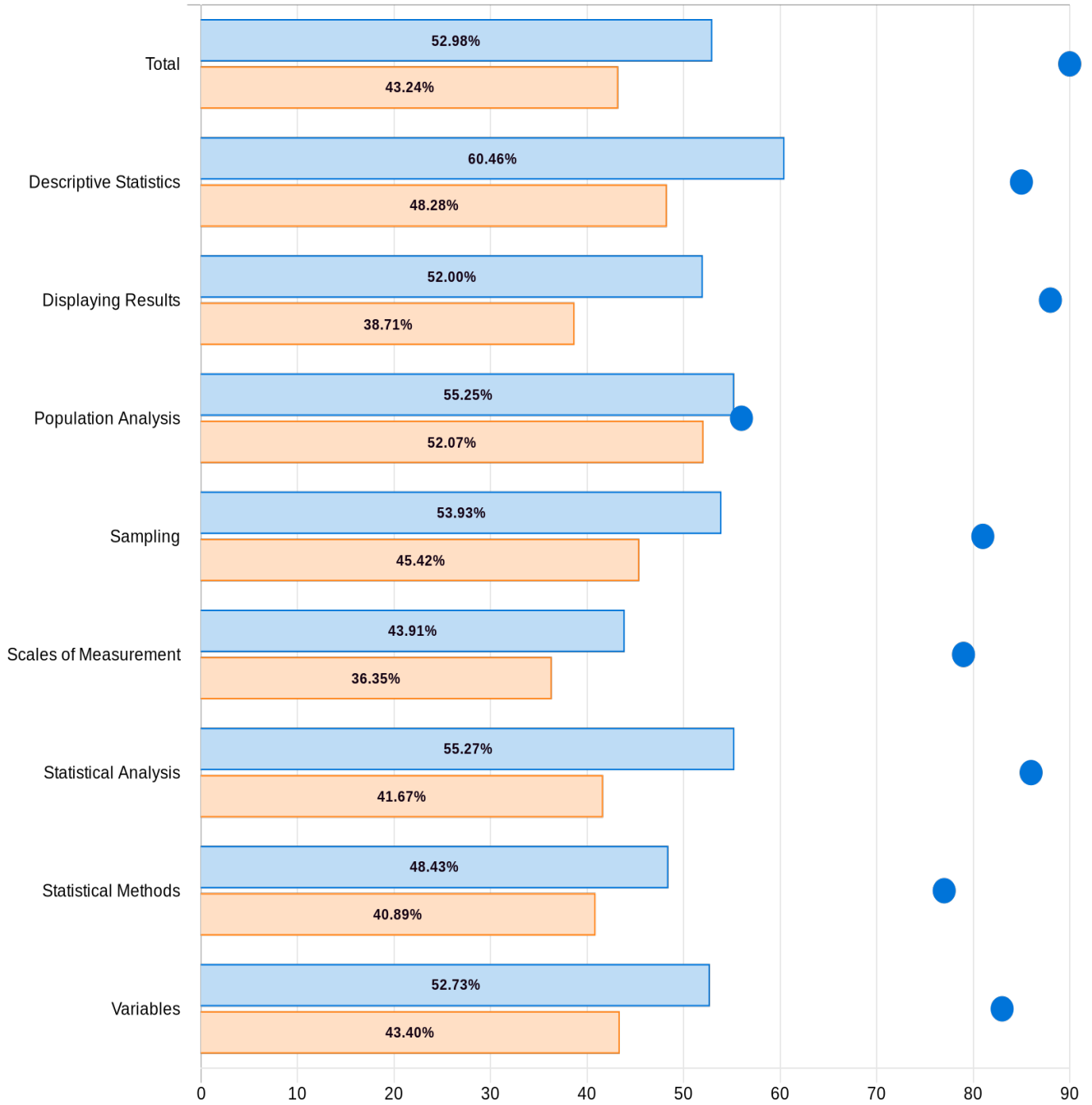
<b>Outside U.S.</b>	<b>Outbound</b>
Sample Size	5,880
Total Score	43.24%
Mean Completion Time	8.42 minutes
Standard Deviation	8.08



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Quantitative Research Techniques and Statistics - Outbound Results Comparison to Aggregate Results



■ Douglas College
 ■ Outside U.S.
   
● Percentile Rank



# Internal Analysis Report — Douglas College

## Bachelors Business GBE

### Quantitative Research Techniques and Statistics - Outbound Exam Summary

Subject	Result for this Report's Dataset		Data for the Selected Aggregate Pool		Percentile Rank for this Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	No. Questions Offered	Frequency Correct	No. Questions Offered	Frequency Correct		25th	45th	65th	85th
Descriptive Statistics	392	60.46%	7,767	48.28%	*85	40.00%	47.04%	51.64%	60.28%
Displaying Results	350	52.00%	7,158	38.71%	*88	31.95%	37.15%	41.00%	50.00%
Population Analysis	257	55.25%	4,374	52.07%	*56	45.83%	50.00%	57.73%	63.44%
Sampling	280	53.93%	6,455	45.42%	*81	37.88%	43.60%	48.69%	55.70%
Scales of Measurement	312	43.91%	5,958	36.35%	*79	28.85%	34.76%	40.29%	45.24%
Statistical Analysis	275	55.27%	5,000	41.67%	*86	32.55%	38.29%	44.69%	53.24%
Statistical Methods	254	48.43%	4,270	40.89%	*77	34.29%	41.03%	45.45%	51.22%
Variables	330	52.73%	7,462	43.40%	*83	36.81%	41.67%	46.67%	54.36%
Summary	2450	52.98%	48,444	43.24%	90	37.99%	42.09%	46.25%	51.00%

Frequency correct values in this table are rounded for easier display. To see the raw values, please select the Excel version of this report.

\*Please note that either the aggregate pool sample and/or school sample for this data set is relatively low for the Percentile Rank Calculation.

Selected Aggregate Pool: Outside U.S.

## How to Read and Understand the Internal Analysis Report

### Purpose of the exam

The purpose of the exam is to provide direct assessment of student learning. The exam results are used to assess the strengths and opportunities for improvement of academic programs. The exam measures the knowledge levels of students related to the learning outcomes of the program.

The Internal Analysis report provides results of the Inbound and Outbound Exams (and Mid-point Exams, when available). The report provides an analysis of means, percentiles, and of frequencies based on the percent of questions students answered correctly. The report results are used for programmatic evaluation and identifying gaps and strengths of a program.

### Who uses the reports

- Program administrators
- Program directors
- Academic program managers
- Accreditation coordinators
- Assessment coordinators
- Course managers
- Anyone involved with programmatic evaluation

### Exam Construct: Inbound and Outbound Approach

An Inbound or Outbound Exam construct provides data for both internal and external benchmarking. The Inbound Exam evaluates the student's knowledge level at the beginning of the student's program of study. The Outbound Exam assesses the student's knowledge level at the end of the student's program of study. The difference in results between the Inbound and Outbound Exams is the direct measure of learning most often used for internal benchmarking.

Additional subject-level comparison to specific aggregate pools allows for both internal and external benchmarking. The assessment results are compared at the topic and subject levels based on percent scores and percentile rankings to determine if student performance is below, at, or above desired thresholds established by the program or school.

The number of questions offered, and the frequency correct value of the aggregates, is based on the sampling of the data at each level (subject, topic, total), independent of each summary level. Thus, the sum of the number of questions offered for a set of subjects may not equal the number of questions offered for the topic.

### How to use the Internal Analysis Report

The Inbound Exam provides the baseline measurement of student knowledge level as they start the academic program. Outbound Exam results are relative to the Inbound Exam results and in comparison, with the selected aggregate pool. Outbound Exam relevancy is understood in terms of the change in knowledge level from the time a student enters the program compared to when they graduate from the program. The results are presented at the topic, subtopic, and subject levels.

External comparisons of Outbound Exam scores with the various aggregate pools are used as a relative index of how the assessed program compares with other programs. There is a high degree of variability between schools with respect to specific curriculums and areas of emphasis or concentrations. Comparisons include other schools with relatively similar student populations and educational delivery means, not necessarily based on the exact curriculum of the program (which would be nearly impossible and most likely unrealistic). There are multiple pools to select from for the comparisons. Only one comparison can be made for the Internal Analysis Report.

## Analyses used in the Internal Analysis Report

The report presents the results of three types of data analyses: Means of Scores Analysis, Percentile Analysis, and Analysis of Percent Correct.

- a) Means of Scores Analysis.** This is a simple mean where we take the total scores and divide by the number of scores. The sample then is either the school's number of exams included in the report or the total number of completed exams in the aggregate pools.
- b) Percentile Analysis.** The exam results within the aggregate pools are converted into percentiles for each exam topic. These percentile scores are shown in the report to help school officials set specific benchmarks by comparing percentile rankings to the exam results included within the aggregate pool. The percentile rank analyses are the percentage of scores that fall at or below a given score at the topic and subject areas for comparison with the program's exam results where available at each corresponding topic and subject area.
- c) Analysis of Percent Correct.** This is a total figure used where we take the total number of questions answered correctly (either at the Subject, Subtopic, or Topic levels) and divide by the total number of questions offered, expressed as a percentage. A set of exam results is treated as one set of data/sample. These results are then compared to the aggregate pool results, which are similarly calculated.

## Average Total Score Percentile

Because not all exams include the same set of topics, a percentile value based on the Exam Total scores cannot be calculated with statistical precision. Most client schools customize the exams using topic selection and some include an internally developed topic. Therefore, the Average Total Score Percentile values are calculated as a simple mean of the topic percentile values. The Average Total Score Percentile values are shown only to provide a relative comparison of the Total Score.

For percentile ranking calculations and percentile benchmarks shown for the selected aggregate pool, results are subject to sample size limitations. In general, percentile ranking, and percentile benchmarks should be used with caution relative to making programmatic changes, especially, if the sample of Questions Offered for the aggregate pool is less than 300 for a specific topic.

## How the data are organized and presented

The Executive Summary page includes an overview of the data presented in the Internal Analysis Report. The first four charts are a side-by-side overview of the exam comparisons' results. If Inbound or Mid-point exams are included, this graph displays Inbound, Mid-point, and Outbound exam averages and the percentage change from the Inbound and Outbound Exams for the available data. Chart #1 illustrates the comparison of the Inbound and Outbound Scores, Chart #2 illustrates the comparison of the completion time in minutes, Charts #3 and #4 Display the comparisons of the Inbound and Outbound Exams with the Selected Aggregate. The Top 3 and Bottom 3 Topic Scores are outlined for quick analysis.

The scatter plot is sorted by Exam Completion Time (low to high) and plotted with the scores of the shorter completion time shown to the left and the scores with the longer completion time shown towards the right. The Y axis plots the exam score and the X axis the completion time.

The comparison of Inbound Exam results with Outbound Exam results are illustrated for each exam topic and subject. For each topic, the Total Score Comparison Summary Tables separate the data for the program and selected aggregate into two tables summarizing the Inbound and Outbound Exams sample size, total score, mean completion time, percentile rank for the aggregate, max and min scores, and the standard deviation. The Comparisons to Selected Aggregate is an overview of each topic or subtopic data charted with the percent correct, a comparison with the aggregate data, followed by a summary table for both the topics Inbound and Outbound exams. The summary table organizes the results for the report's dataset by subject to include the frequency correct for the program and selected aggregate, a percentile rank, and the percentile benchmarks used for learning outcomes evaluation. [Similar charts and tables are shown for each topic, with similar subject-level data.]

## Internal Analysis Report — Douglas College

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For each topic or subtopic for both Inbound and Outbound exams, the reported data include:

1. Inbound and Outbound Program Results and Exam Data Comparison.
2. Bar Graph of the Subjects within the Topic or Subtopic compared to the selected aggregate pool used with the report. Percentile rank is illustrated by the circles on the bar graph and the color key below.
3. An Exam Summary Table of the questions offered on the exam. This table shows the percentile rank and the percentile benchmarks based on the selected aggregate pool.

## Best Practices

### Reviewing Individual Results

It is important that students give their best effort in completing the assessment, especially for the Outbound Exam. An essential component of administering the assessment is to explain the purpose of the exam to the students so that the schools can collect actionable and accurate data on student performance for programmatic evaluation and continuous improvement efforts.

- To encourage students to do their best with the Outbound Exam, an incentive is usually needed. Exam incentives include a direct grade, points, or extra credit. Another option is to assign an additional assignment when students do not meet a specific threshold. Typically, simply grading the exam is the best approach to properly incentivize the exam (see the Interpreting & Evaluating Exam Scores section).
- Individual student completion times provided in the Individual Results Report are helpful when evaluating student effort, particularly with Outbound Exam results. Typically, a 100-question exam should take the student about 60-90 minutes to complete. If exam completion times are below 30 minutes, academic officials may consider further efforts to incentivize the exam in order to get the students to take the exam seriously and thus improve results. Note: Mean completion times are provided in the Internal Analysis report. All reports can be filtered to remove results where the completion time is below a desired threshold.
- Another way to evaluate students' readiness for assessment, and their commitment to academic integrity, is to review the time students spent away from the exam window. This information is provided in the Individual Results Report.

### Reviewing Cumulative Results

Topic-level scores tend to be more meaningful in terms of analysis value than the total score. Although most exams include all available topics, not all exams will include all available topics. Therefore, the total score comparisons are shown for relative benchmarking, whereas the topic and subtopic level score comparisons will tend to be more meaningful in terms of understanding relevancy of the scores.

- If there are topics included on the exam that do not appear to be directly related to your curriculum and/or learning outcomes, consider removing these topics from future testing. It is generally best not to test on topics that are not included in the program's curriculum.
- Consider the sample size for the exam period before making changes in the program based on the exam results. Lower sample sizes tend to have higher standard deviations. In general, it is best to have a sample of at least 100 exams before the results can be used for programmatic changes. Since the report period is a variable, the past exam results could be included for future reporting in order to get the sample size high enough for meaningful analysis.
- It is important not to make too many changes in a program at once based on the results of one or two exam periods. Instead, make small incremental changes to the program based on the results and then monitor the results to assess the consequences of the change effort.

### Learning Outcomes Analysis

To evaluate the institution's learning outcomes, please review the Exam Summary table shown for each topic. These data are most useful when considering learning outcomes.

- Not every subject included on the exam will directly correspond to a program's learning outcome because this is a standardized test meant to apply to the widest diversity of programs. Therefore, the score for the topic or subtopic must be taken in the context of the subject-level analysis. For example, a relatively low topic/subtopic score may be acceptable provided that the subject-level scores are high for those subjects that are directly related to learning outcomes. Conversely, a high topic/subtopic score may be unacceptable if the questions missed on the exam were high for key learning outcomes.
- An Aggregate Extraction report is available and includes the aggregate pool statistical summary data that are used for comparison analysis purposes. This report is available in the Client Admin site under the menu item Reports.

## Interpreting and Using Exam Scores

Inbound Exam results are obtained from incoming learners who have just started their academic program. Cumulative Inbound Exam results are typically used relative to the cumulative Outbound Exam results to directly measure academic learning. Individual learner results from Inbound Exam (Individual Results Report) can be used to help guide, advise, and place a learner within a program of study.

Outbound Exam results are a direct measure of academic learning since the learners taking the Outbound Exam have completed, or nearly completed, the academic degree program.

Outbound Exam results, both cumulatively and individually, DO NOT correspond directly to a traditional academic grading scale. This is a normed exam with an average degree of difficulty of questions approximately 55%-60%. The exam is relative to the Inbound Exam results, as well as the external aggregate comparisons.

NOTE: There is not a “passing” or “acceptable” score based on the results of this normed exam, nor do accreditation organizations expect to see a passing or acceptable level. Rather, school officials determine what is passing/acceptable based on associated benchmarks. Abandoned exams receive a zero and are not included in cumulative results.

There is a distinct difference between evaluating results versus grading individual exams. Individual learner grading of the Outbound Exam could be conducted using the figure and table on the following page. Typically, the Outbound Exam should be incentivized to encourage learners to do their best. Inbound Exams are usually not incentivized since the learner is just starting the academic degree program and most likely has limited knowledge of the instructional topics.

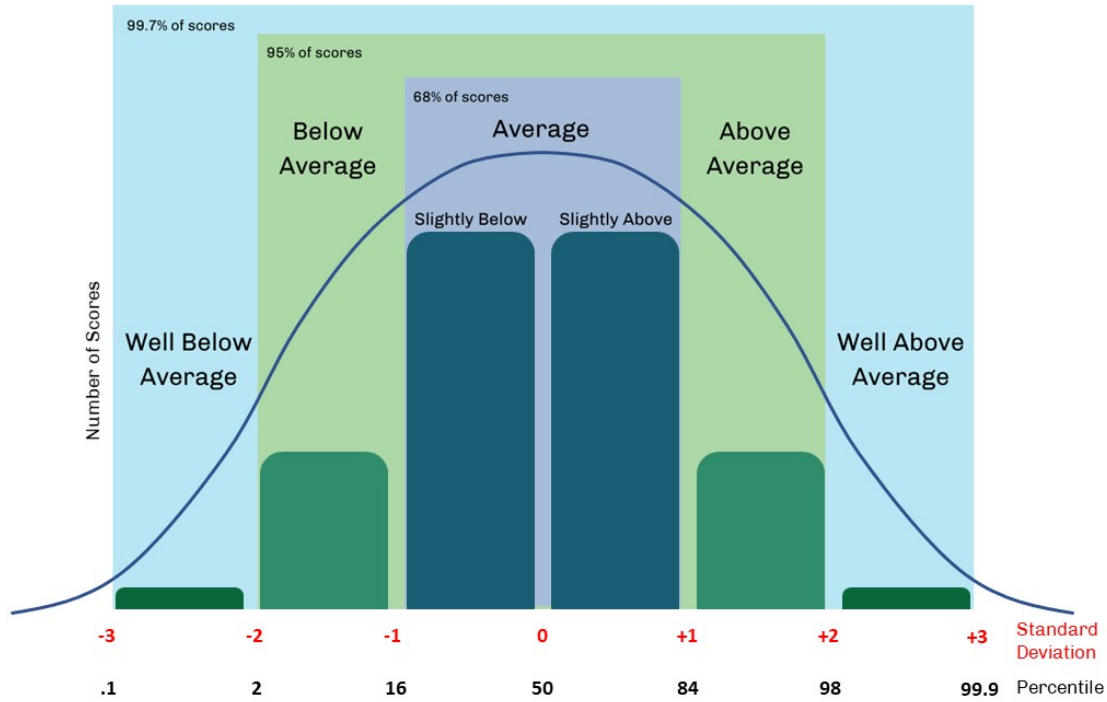
If specific academic credits (e. g., grade, points, or extra credit) are to be awarded to learners based on their exam results, the Interpretation of Assessment Scores Based on Cumulative Results figure and the Relative Interpretation of Learner Competency table show a relationship between the percentile score's exam results and relative student performance based upon competency level.

Percentiles are used rather than percent scores so that the learner's results can be understood relative to the cumulative results of all learners who have completed the exam. Peregrine Global Services maintains 4-year rolling aggregate comparison pools that include percentiles. The individual learner scores and the cumulative assessment results are shown in both percentages and percentiles.

As illustrated in the Interpretation of Assessment Scores Based on Cumulative Results figure, the percentile distribution is based on the standard deviations (SD) of the sample:

- Average is the 50th percentile.
- Exam scores that are one SD above the mean are Slightly Above Average (50.1st – 84th percentile).
- Exam scores that are two SDs above the mean are Above Average (84.1st – 97.9th percentile).
- Exam scores that are three SDs above the mean are Well Above Average (98th – 99.9th percentile).
- Exam scores that are one SD below the mean are Slightly Below Average (16th – 49.9th percentile).
- Exam scores that are two SDs below the mean are Below Average (2.1st – 15.9th percentile).
- Exam scores that are three SDs below the mean are Well Below Average (0.1st – 2.0th percentile).

## Interpretation of Assessment Scores Based On Cumulative Results



Percentiles	Relative Interpretation of Learner Competency
98.0-99.9	Well Above Average
84.1-97.9	Above Average
50.1-84	Slightly Above Average
50	Average
16-49.9	Slightly Below Average
2.1-15.9	Below Average
0.1-2.0	Well Below Average

Once the academic institution has data from at least 50 exams from the same assessment service, the Grade Scale Report can be generated to provide a grading curve based on the learner results from the institution. Alternatively, academic officials can grade an exam using the percentiles calculated from the aggregate pools. Both methods are appropriate so long as the exam is evaluated based on a curve of the distribution of scores.



## Peregrine Global Services Reports

### Individual Learner Assessment Reports



**Individual Results Report.** A learner-by-learner report of the exam results in Excel that shows the scores and percentiles obtained on the exam at the Topic and Subject levels.



**Pairwise Report.** A report that shows learner-by-learner results when the same learners who took the Inbound Exam also complete a Mid-point or Outbound Exam. The differences in scores are displayed.



**Pairwise Report Executive Summary.** A summary of the Pairwise Report showing the average Inbound, Mid-Point, and Outbound exam results of learners who completed these exams.

### Individual Learner Module Reports



**Academic Leveling Report.** A learner-by-learner summary of the pre-test and post-test results of the learner's leveling modules.



**Academic Leveling Report Executive Summary.** A summary of the pre-test and post-test averages of the leveling modules.



**Write & Cite Report.** A report specifically for Write & Cite: Academic Writing Readiness that shows the learner's pre-test and post-test scores.

### Programmatic Assessment Reports



**Internal Analysis Report.** A report of a selected set of exams compared to an aggregate pool. Results are compared at the topic and subject levels based on percent scores and percentile rankings to determine if student performance is below, at, or above desired thresholds.



**Internal Analysis Report Executive Summary.** An abbreviated version of the Internal Analysis Report that is commonly used to share the summarized results with stakeholders.



**External Comparison Report.** A report of a selected set of exams comparing the results against one or more aggregate pools. Comparisons include a comparison of the scores and a comparison of percentage change when Inbound exams are included.



**External Comparison Report Executive Summary.** An abbreviated version of the External Comparison Report that is commonly used to share the summarized results with stakeholders.



**Program-Cohort Comparison Report.** A side-by-side comparison of the results between two or more academic programs or cohorts of learners where there is an overlap of the exam topics. The report is used to understand any differences that exist between the groups.



**Longitudinal Report.** A side-by-side comparison of the same exam over different exam periods. Up to four exam periods can be shown on the report. The report is most often used to evaluate programmatic change and to understand the trends over time.

# Internal Analysis Report — Douglas College



**Gap Analysis Report.** A report that identifies potential learning gaps by combining elements from the Longitudinal Report, the Internal Analysis Report, and the Response Distractors Report. This report provides a comparative analysis of topic and subject level data against one external benchmark, while summarizing program data over multiple exam periods. This analysis identifies trends in exam results and potential gaps in student retained knowledge. The gaps are color-coded at the topic and subject levels to draw attention to opportunities for reinforcement. Further analyses of student error results inform program directors on opportunities to reinforce and develop student knowledge in key topic and subject areas.



**Response Distractors Report.** A report that summarizes the reasons why learners answered questions incorrectly based on five types of response distractors. The report compares the school's results against both the test bank and an aggregate pool to see if learners are selecting incorrect responses at disproportionately higher or lower rates.



**Learner Comparison Report.** A comprehensive report that includes data analysis elements from both Internal Analysis and External Comparison in one report.

## EvaluSkills Soft Skill Assessment Reports



**EvaluSkills Participant Report.** A report that summarizes the soft skill evaluations of a participant and compares the results against the group averages. The report includes the participant's action plan.



**EvaluSkills Participant Comparison Report.** A report that compares the results of two soft skill assessments such as a pre-program assessment and a post-program assessment to show the learner the resulting changes.



**EvaluSkills Group Report.** A report that summarizes a group of participants and their evaluations. The report is used to directly measure desired learning outcomes.



**EvaluSkills Group Comparison Report.** A report that summarizes two soft skill assessments such as a pre-program assessment and a post-program assessment to show change over time. The report is used to directly measure change relative to desired learning outcomes.

## Supplemental Assessment and Learner Evaluation Reports



**Student Exit Survey Report.** A summary report of the results from an optional student survey administered in conjunction with an Outbound Exam.



**Grade Scale Report.** A report based upon the school's exam results used to determine a school-specific grading scale for the Outbound Exam based on percentile scoring.

## Aggregate Reports



**Aggregate Extraction Report.** A report with the aggregate data in Excel format that can be used for additional data analysis.

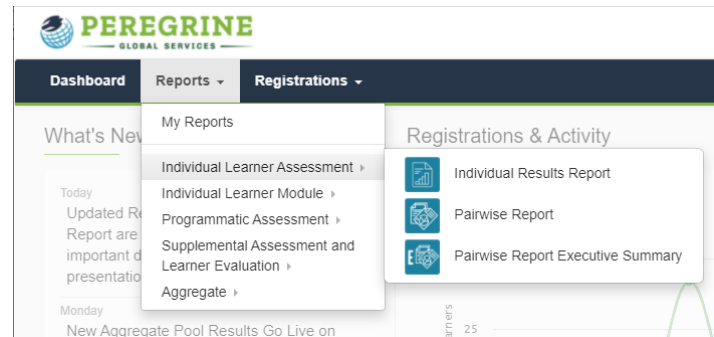


**Aggregate Schools Report.** A listing of the schools included in each of the aggregate pools.

## Generating Reports

### Getting Started

From the Client Admin Dashboard, go to Reports. Select your report category and a report from the dropdown menu.



### Using the Report Wizard



Use the numerated tabs of the Report Wizard to complete the steps for report generation:

**STEP 1.** Choose your **Assessment Period**. Assessment completion dates will fall within the range you choose. For the **Longitudinal Report**, you will choose 2 to 4 time periods. Choose your **Assessment Category**, i.e., Business (BUS). If you have report criteria saved, you can click **Load Report Criteria** now.

**STEP 2.** Select an **Academic Degree Level**. Select Your **Comparison Type** – Assessments is selected by default. Should you desire to run your report by Program or Cohort, you may choose one program or cohort at a time. If you do select more than one, all the data will be combined into one report. Comparison of program or cohort data can only be done using the Program or Cohort report.

**STEP 3.** Select one or more **Assessments**. Choose the exam(s) for which you want to see results. If your Comparison Type was Program or Cohort, you will select the program or cohort for which you want to see results.

**STEP 4.** Select your **External Benchmark(s)**. You may choose one External Comparison for the Internal Analysis Report, and up to five External Comparisons for the External Comparison, Program or Cohort, and Longitudinal reports. Depending on the data available for your assessment type and academic degree level, the aggregate pool categories to benchmark against include educational accreditation agencies, program delivery modalities, general demographics, and regional accreditors.

**STEP 5.** **Report Filters**. The **Type of Registrants** will default to **Learner**. Include **ALL Exams** or select **Filter Exams Outliers by Completion Time**. Using the slider, you can select the range of exam completion times (in minutes) to include in your analysis. For example, only include exams where the completion time is between 30 and 300 minutes. By default, sub-topical information will be included in your report, if applicable. Toggle No if you do not want to include sub-topic data in your report.

## Internal Analysis Report — Douglas College

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**STEP 6. Review your report information.** If changes are needed to any section of the Report Wizard, click the **Edit** button to return and revise the exam criteria. You may **Save Report Criteria** for future reference and use. Note that this feature will save all criteria except for the date range. When returning to use saved report criteria, click Load Report Criteria on Page 1 of the Report Wizard, and enter the dates for the period you want to see data.

Select the format for your report:

- **PDF** – The most visually appealing format. All reports except the Individual Results Report and the Aggregate reports are available in PDF.
- **CSV (Excel)** – Use the Excel format to export your data to a spreadsheet.

**PREVIEW REPORT.** To preview the data in your selected report, click **Preview Report**. A new window will open and immediately display on your screen charts and tables containing the data in your report. To copy and paste any of the charts, tables, or other data, simply Right-click the image, and then select Save Image or Copy Image.

**GENERATE REPORT.** To generate your report, click **Generate Report**. A notification will appear: **Report Has Been Queued**. When your report is ready, a banner notification will pop up at the bottom of your screen: **Your report has finished processing**. number will also appear above the bell icon in the upper right corner of your screen. The drop-down menu on the bell icon will list your generated reports. Return to **Reports** on the Client Admin toolbar and select **My Reports**. Locate your report from the list of processed reports and click the **Download** button.

### Report Wizard Variations

**Pairwise Report.** In Step 3, choose your desired Inbound and Outbound Exams to build a list of applicable learners to report against. Students will populate based on each selection you choose. In Step 4, choose from the list the students you want included in your report. The list will only include students who completed both the Inbound Exam and the Outbound Exam. Step 4 is omitted when running the Pairwise Executive Summary Report, as individual student data are not included in the summary.

**Program or Cohort Report.** In Step 2, select your **Comparison Type(s)**: Programs or Cohort, Specializations, etc. Select your assessment Timeline: Inbound, Outbound, or both. Select an Academic **Degree Level**. In Step 3, **Choose your assessment**. (This choice is optional.) In Step 4, select one or more cohorts to compare from the list provided. Alternatively, **toggle YES for Group Cohort Comparison**.

**Response Distractor Report.** . With the Response Distractor Report, a Chi Square Test is used to determine significance. The standard for the report is  $p < 0.05$ . In **Step 6**, you have the option to choose a different level of significance, if desired.

For additional information on generating reports, please contact your Client Engagement Team via [ClientServices@PeregrineGlobal.com](mailto:ClientServices@PeregrineGlobal.com).

## Validity and Reliability

### Assessment Services Test Bank Validity and Reliability

The programmatic assessment services provided by Peregrine Global Services are used to assess retained knowledge of students at the academic program level. School officials deploy these services to evaluate the effectiveness of their academic programs, identify areas for improvement, and demonstrate program outcomes to external stakeholders. Ensuring the ongoing validity and reliability of the assessment services is of utmost importance for our assessment services. These practices begin at the design stage, continue during the piloting phase, and are ongoing with the conducting of comprehensive quality reviews.

Validity refers to the extent to which the exam results are relevant and meaningful for the purpose of the exam, that is, to assess a student's retained knowledge of the program topics being assessed. Reliability refers to the extent to which the exam results are repeatable across different sets of participants, and therefore data sets can be compared over time.

### Ensuring Validity and Reliability

Peregrine's assessment services incorporate the following design features that enhance both validity and reliability.

1. Exam scoring is 100% objective, using automated marking.
2. Each exam viewed by a student is unique using a random selection of questions from the test bank in random topic order.
3. Each response to a question is timed. Student activity is monitored: when the user navigates away from the exam screen, the screen fades and a [warning] message is shown.
4. Students are unable to copy/paste from the exam window.
5. Abandoned exams are excluded from summary reports.

In addition, the following specific practices are adopted. The exam services meet AICPA, Trust Services Criteria set forth in DC 200, 2018 Description Criteria for a Description of a Service Organization's System in a SOC 2® Report. This third-party auditing and reporting process is designed to provide reasonable assurance that Peregrine Global Services Corporation's service commitments and system requirements achieve the criteria relevant to security and availability set forth in TSP 100, 2017 Trust Services Criteria for Security, Availability, Processing Integrity, Confidentiality, and Privacy (AICPA, Trust Services Criteria).

### Ensuring Validity

The following measures are adopted when test banks are created:

- Topics and Subjects are selected to align with pertinent accreditation and/or certification requirements and related learning outcomes.
- The exam services are designed in consultation with accreditation agency officials.
- Test questions are created (and revised) by academic professionals with expertise in the relevant discipline.
- In order to ensure appropriate breadth of coverage and to enable specific learning outcomes measurement and reporting, questions are created to align with typically 4-8 Subjects for each Topic.

Once a new test bank is created, the service is piloted with clients to obtain feedback and confirm the design construct will meet the needs specific to the discipline of interest.

Client feedback is also continuously gathered and incorporated into the test bank quality review program.

## Ensuring Reliability

Traditional methods for determining exam reliability are not applicable when a test bank is used to randomly generate unique tests for exam participants. In consultation with an external expert, Peregrine Global Services developed a methodology that relies upon multiple measures that collectively determines the reliability of the test bank and identifies specific questions for remediation. The measures are Item Difficulty, Item Discrimination, and Item Interchangeability. If a test bank question fails any one of the tests, the question is flagged for replacement or modification. Academic professionals are employed to revise questions and/or create replacements.

**Item Difficulty** refers to percentage of students who answer questions correctly. Data are generated by topic and for each individual question. The target Item Difficulty is 60 percent correct with an acceptable range of 35 – 80 percent. Questions which fall outside of this range are modified to make them less or more difficult as indicated by the data.

**Item Discrimination** refers to how well a question distinguishes between those students with more knowledge (higher overall exam scores) from those with less knowledge. Two measures are used: Discrimination Index and Point-Biserial Correlation.

For a given question, the Discrimination Index compares the scores of students with high overall test scores with students with low overall test scores. The scale is -1 to +1, with higher values indicating that a given question better distinguishes between high and low performing students. A value of  $\geq 0.20$  is considered acceptable.

Point-Biserial Correlation is equal to the Pearson's Correlation Coefficient between the scores on the entire exam and the scores on a specific question. A score of  $\geq 0.10$  is considered acceptable. Questions that fail either of the discrimination criteria are replaced.

**Question Interchangeability** refers to the ability to substitute a question in the test bank with another without significantly affecting the total score that an individual would receive on the exam. This is determined using Cohen's Effect Size  $d$ , calculated based on a two-tailed t-test comparing the total score for all students who had that question in their exam versus the total score of the students who did not have that question in their exam. The scale is 0-1.0 and a score of  $< 0.20$  is considered acceptable. Questions that fail the interchangeability criteria are replaced.

### Reference

Oedekoven, O. O., Napolitano, M., Lemmon, J., & Zaiontz, C. (2019). Determining test bank reliability. *Transactional Journal of Business*, 4 (Summer 2019), 63-74.

## Glossary of Terms

### Exam Specific Terminology

**Abandoned Exam.** An exam that had the 48-hour time limit elapse or the 3 access attempts were exceeded. These exams are auto completed, giving the student a score of "0" for each unanswered question. These exams are only included in the school's individual results, not in the reporting or analysis.

**Cohort.** A group of students based upon a demographic factor such as specialization, campus location, program start date, etc.

**Content of the exam.** The Exam Summary document contains the list and descriptions of topics, subtopics, and subjects with a couple sample questions.

**Exam.** Includes all selected topics to assess a specific program. Each topic has 10 questions included within an exam, randomly selected from a validated test bank. Inbound and Outbound Exams are generated from the same test bank of questions.

**Inbound Exam.** A student exam administered early in the student's program, usually during their first or second core course, that measures the student's knowledge level at the beginning of their academic program.

**Mid-point Exam.** A student exam administered halfway in the student's program that measures the student's knowledge level at the middle of their academic program.

**Outbound Exam.** A student exam administered at the end of the student's academic program, usually in their last course, that measures the student's knowledge level at the end of their academic program.

**Program.** A program is comprised of core, required and elective courses that lead to awarding of a degree.

### Statistical Terminology

**Coefficient of Determination ( $R^2$ ).** Coefficient of determination, R squared, is a statistical measure of how well the regression line approximates the real data points. An  $R^2$  of 1 indicates that the regression line perfectly fits the data.

**Frequency of Questions Correct.** For the Outbound Exam, the frequency of questions correct is calculated for each subject within a topic. The formula is:  $(\text{Number of Questions Correct} / \text{Number of Questions Offered}) * 100$ . To provide a relative index for understanding these data, an average of questions correct is shown for the aggregate pool selected for the Internal Analysis Report. To see the comparisons for other pools, the Internal Analysis Report can be re-run with a different pool selected.

**Mean Completion Time.** The average time, in minutes, to complete the exam. Mean completion time is also shown for each topic.

**Percentage Change.** The percentage change between two scores. For Inbound and Outbound testing, the percentage change is calculated using the following formula:  $(\text{Outbound Score} / \text{Inbound Score}) - 1$ .

**Percentage Change Comparison.** The percent difference between the school's percentage change between Inbound and Outbound Exam results and the aggregate pool's percentage change between Inbound and Outbound Exam results. The percentage change comparison represents a relative learning difference between the specific school and demographically similar schools.

**Percentage Difference.** The percentage difference between a school's Outbound Exam results and the aggregate, calculated using the following formula:  $\text{Aggregate Score} - \text{School Score}$ .

**Percentile.** Percentiles are shown within the topic and subject level analysis based upon the frequency of questions answered correctly. The measure is used to establish relevancy of the school's score with the selected aggregate pool used for the Internal Analysis Report. The percentile benchmarks indicate to what level an average score is needed in order to be at the 80th, 85th, 90th, or 95th percentile, which school officials can subsequently use for academic benchmarking and for setting performance targets.

A **percentile** rank is the percentage of scores that fall at or below a given score and is based on the following formula:  $((\text{NumValuesLessThanScore} + (0.5 * \text{NumValuesEqualScore})) / \text{TotalNumValues}) * 100$ . When shown, the percentile rank of the school's exam sample of the subject/subtopic/topic score to the aggregate pool is based on using exam results within the aggregate pool grouped by school and calculated using samples of 30 exams. The percentile rank is not a ranking based on the number of individual schools included within the aggregate pool; rather it is a percentile ranking compared to the exam results included within the aggregate pool.

The **percentile benchmark** values are calculated using the Empirical Distribution Function with Interpolation based upon the Excel Function of PERCENTILE.INC (array,k). This function uses the following formula:  $(n-1)p=i+f$ ; the letter i is the integer part of  $(n-1)p$ , f is the fractional part of  $(n-1)p$ , n is the number of observations, and p is the percentile value divided by 100. The percentile benchmark is the required score of questions correct to be at a specific percentile value (80th, 85th, 90th, or 95th) and is based on interpolation.

**Summary Statistics.** Includes the mean completion time, sample size, average score, standard deviation, and the min/max/median/mode scores.

**Total Exam Score Significance.** If a student simply randomly selected responses to questions, the statistical mean of the total score of such a randomly responded to exam would be approximately 30% (+/- 2.5% depending upon the number of questions on the exam). Therefore, exam scores above 30% could be considered significant in terms of measuring actual knowledge levels.

### Assessment Terminology

**Academic Level.** The academic degree level of the program: associate, bachelors, masters, and doctoral.cables

**Aggregate Pools.** The aggregate pool is the data set used for external benchmarking and comparisons and is based on the results from institutions included in the selected pools. The various aggregate pools are defined as follows:

- **Pools Based on Program Delivery Modality:** Traditional, Online, and Blended.
- **Pools Based on Location:** Outside-US, Regional/Country, and Inside the US.
- **Pools Based on Institutional Characteristics:** Privately owned, Publicly owned, HBCU, Faith-based, and others.
- **Pools Based on Degree Type:** MBA, MA, MS, MHA, and MPA.
- **Pools Based on Accrediting Agency Affiliation:** AACSB, ACBSP, AMBA, IACBE, and others.

**Assessment Period.** The date range for the report, which includes all the exams completed within these dates. For synchronous schools, the assessment period is generally based upon the semester or quarter. For asynchronous schools, the assessment period is generally annual, semi-annual, or quarterly. School officials determine the assessment period.

**External Benchmarking.** Analyses performed by comparing the cumulative results from a school with a demographically similar aggregate data set.

**Internal Benchmarking.** Analyses performed by comparing the Inbound and Outbound Exam scores and/or by the analyses of the frequency of questions correct for each subject within a topic.



## Internal Analysis Report — Douglas College

### Assessment Period:

January 1, 2020 - January 27, 2023

### Academic Level/Assessment Solution

Bachelors Business GBE

### Aggregate

Outside U.S.

**TOGETHER, WE BELIEVE WE CAN CHANGE THE WORLD**



Peregrine Global Services develops values-based leaders and provides higher education assessment, educational, and support services. We combine technical ability with expert consulting to provide organizations the information and resources they need to accomplish their goals.

