Learner Comparison Report

University of San Francisco

8/11/2017 - 8/11/2017

Total Tests = 16
Inbound = 16

Academic Level: Masters
Aggregates: Located Inside the US
Masters of Business Admin.
Traditional/Campus-based Delivery Mode
Course: USF EMBA LO 10 Pre-test

Prepared By:

Peregrine Academic Services, LLC

P.O. Box 741
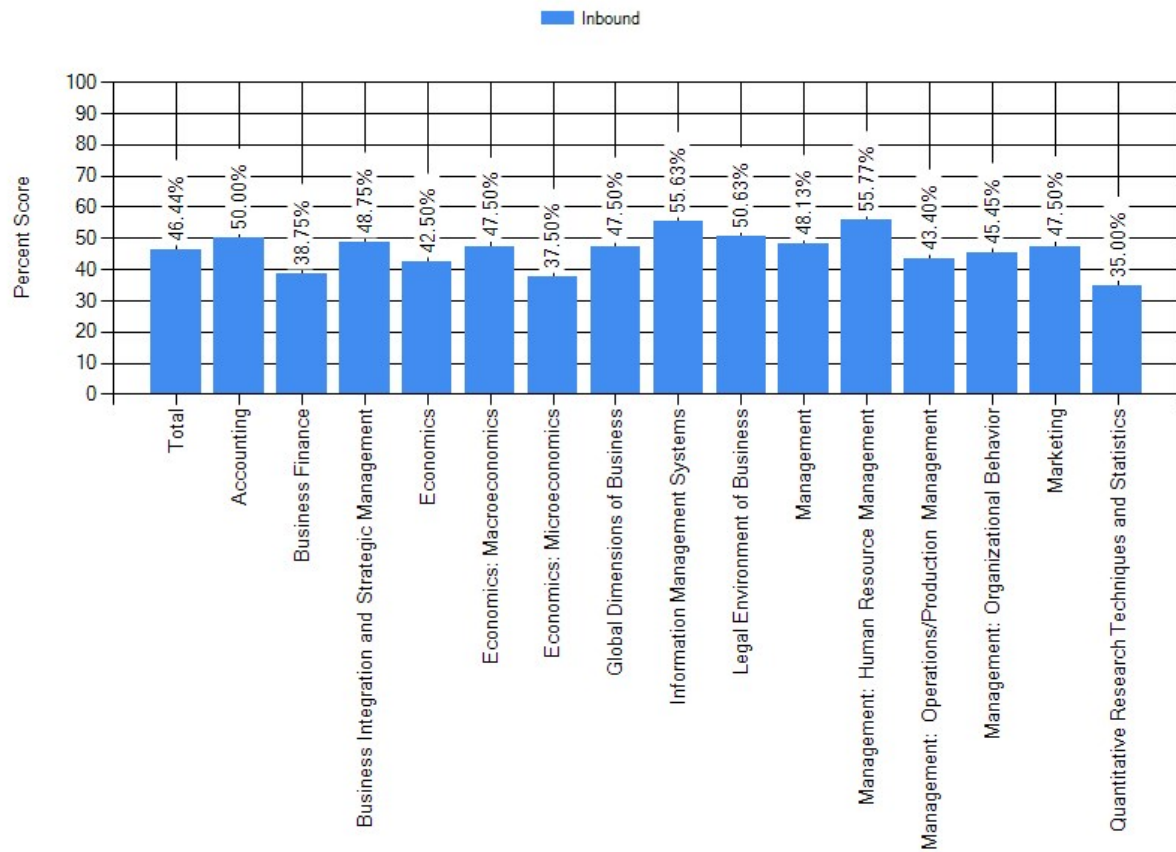
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(307) 685-1555

Please direct questions to PASClientServices@peregrineacademics.com
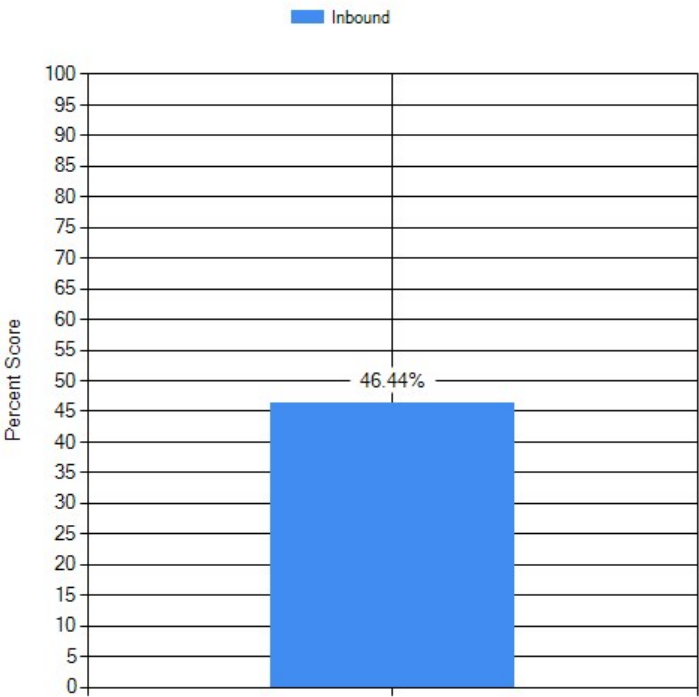
Table of Contents

Comparison of Inbound Exam Results with Outbound Exam Results

Inbound

Percent Score

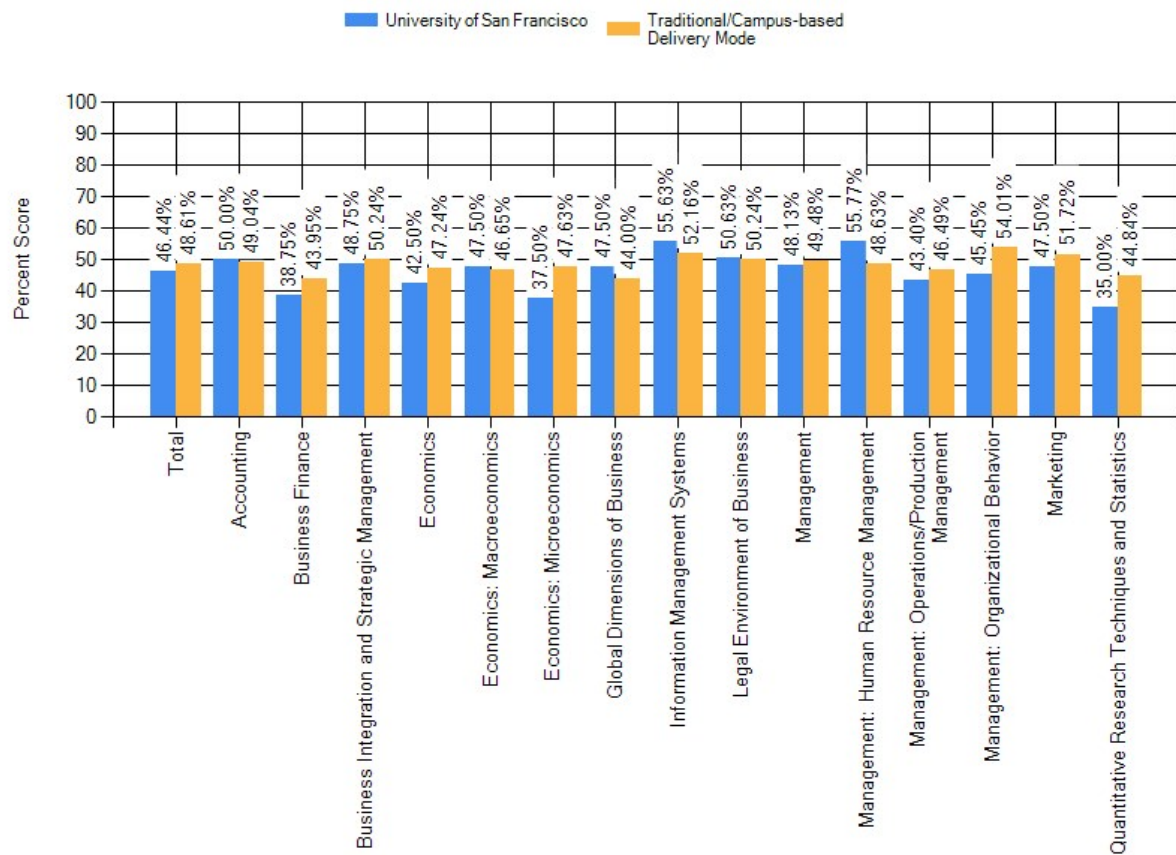| Category	Inbound
Total	46.44%
Accounting	50.00%
Business Finance	38.75%
Business Integration and Strategic Management	48.75%
Economics	42.50%
Economics: Macroeconomics	47.50%
Economics: Microeconomics	37.50%
Global Dimensions of Business	47.50%
Information Management Systems	55.63%
Legal Environment of Business	50.63%
Management	48.13%
Management: Human Resource Management	55.77%
Management: Operations/Production Management	43.40%
Management: Organizational Behavior	45.45%
Marketing	47.50%
Quantitative Research Techniques and Statistics	35.00%

Total Score Comparison

Inbound

-100.00% Percentage change from Inbound to Outbound

Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 62

Inbound Exam

Legend: ■ University of San Francisco   ■ Traditional/Campus-based Delivery Mode

| Category	University of San Francisco	Traditional/Campus-based Delivery Mode
Total	46.44%	48.61%
Accounting	50.00%	49.04%
Business Finance	38.75%	43.95%
Business Integration and Strategic Management	48.75%	50.24%
Economics	42.50%	47.24%
Economics: Macroeconomics	47.50%	46.65%
Economics: Microeconomics	37.50%	47.63%
Global Dimensions of Business	47.50%	44.00%
Information Management Systems	55.63%	52.16%
Legal Environment of Business	50.63%	50.24%
Management	48.13%	49.48%
Management: Human Resource Management	55.77%	48.63%
Management: Operations/Production Management	43.40%	46.49%
Management: Organizational Behavior	45.45%	54.01%
Marketing	47.50%	51.72%
Quantitative Research Techniques and Statistics	35.00%	44.84%

Inbound Exam Summary

Inbound	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Accounting	160	50.00%	32139	49.04%	*62	43.17%	47.03%	50.33%	57.50%
Business Finance	160	38.75%	31925	43.95%	*32	38.18%	40.64%	43.72%	55.37%
Business Integration and Strategic Management	160	48.75%	28743	50.24%	*57	44.13%	46.93%	50.33%	61.65%
Economics	160	42.50%	31006	47.24%	*34	41.22%	44.01%	47.28%	58.02%
Economics: Macroeconomics	80	47.50%	15627	46.65%	*64	40.63%	44.00%	47.85%	57.70%
Economics: Microeconomics	80	37.50%	15208	47.63%	*11	41.65%	44.86%	47.96%	57.55%
Global Dimensions of Business	160	47.50%	23021	44.00%	*77	38.95%	41.67%	44.90%	51.04%
Information Management Systems	160	55.63%	11894	52.16%	*71	46.83%	50.90%	54.97%	61.13%
Legal Environment of Business	160	50.63%	11504	50.24%	*55	43.33%	46.33%	55.58%	59.93%
Management	160	48.13%	28196	49.48%	*52	43.37%	47.01%	51.08%	58.95%
Management: Human Resource Management	52	55.77%	9333	48.63%	*72	41.25%	47.73%	53.08%	58.58%
Management: Operations/Production Management	53	43.40%	9992	46.49%	*40	38.91%	44.42%	49.37%	57.97%
Management: Organizational Behavior	55	45.45%	9298	54.01%	*12	47.51%	51.24%	56.43%	64.68%
Marketing	160	47.50%	29014	51.72%	*24	47.58%	49.67%	52.29%	60.92%
Quantitative Research Techniques and Statistics	160	35.00%	25223	44.84%	*6	37.81%	40.67%	45.31%	56.61%
Summary	1600	46.44%	252665	48.61%	52	43.25%	45.05%	48.45%	58.73%

Frequency correct values in this table are rounded for easier display. To see the raw value 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.

Inbound Exam Total Result
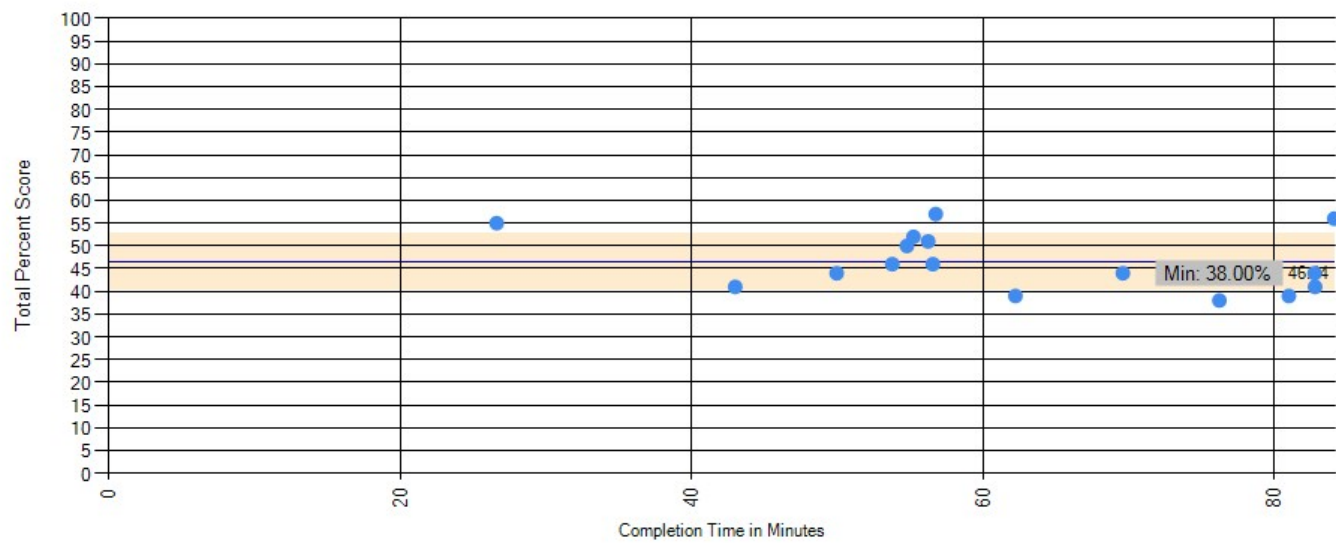
Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 61.97

Mean Score: 46.44%, Max Score: 57.00%, Min Score: 38.00%

Standard Deviation: 6.32

* Results are sorted by number of minutes taken to complete the exam.
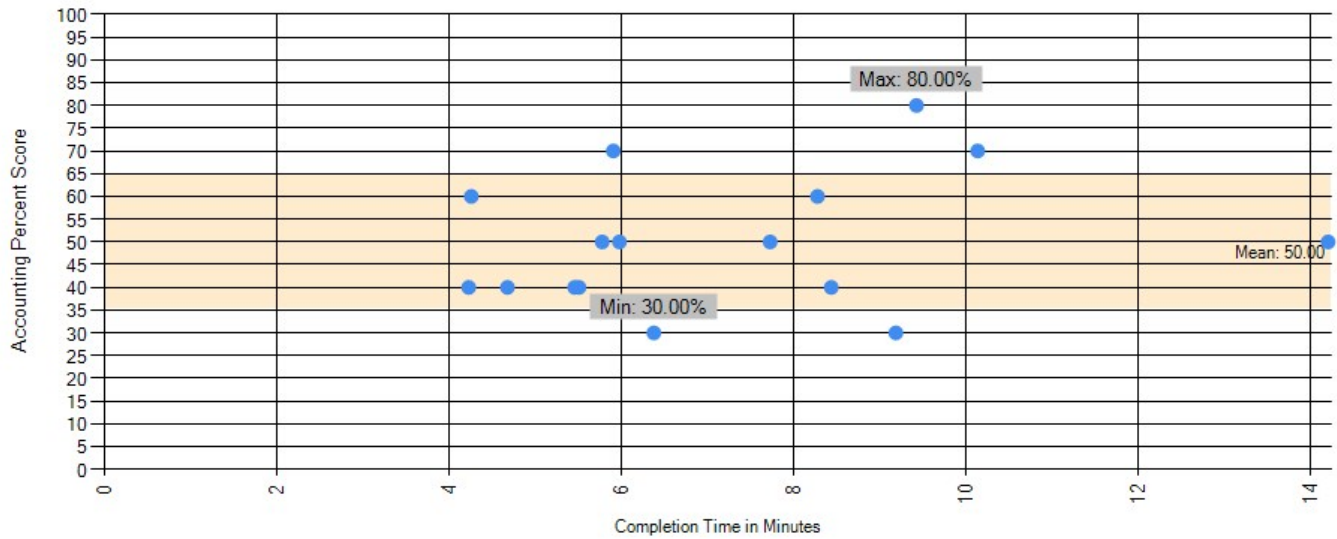
Accounting Score Comparison
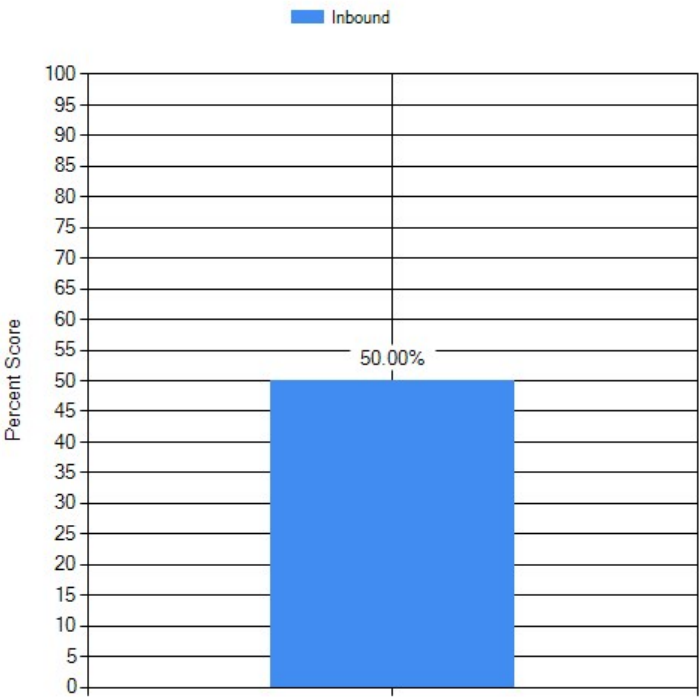
■ Inbound

-100.00% Percentage change from Inbound to Outbound

Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 7.2

Accounting Assessment Summary

Assessment Summary Statistics

Accounting	Inbound
Sample Size	16
Mean Score	50.00%
Standard Deviation	14.61
Min Score	30%
Max Score	80%
Median Score	50%
Mode	40%

Inbound Exam Accounting Result
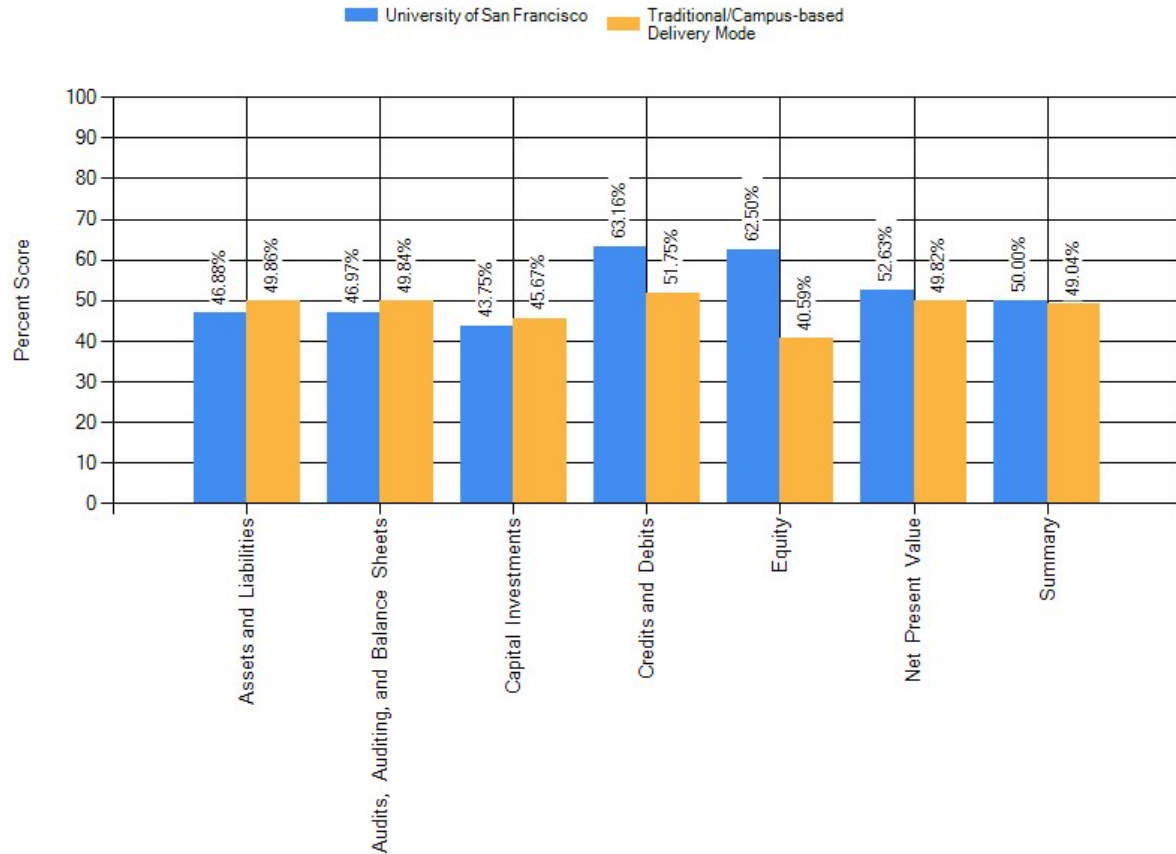

Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 7.22

Mean Score: 50.00%, Max Score: 80.00%, Min Score: 30.00%

Standard Deviation: 14.61

* Results are sorted by number of minutes taken to complete the topic.

Accounting Subject Score Comparison *Inbound Exam*

Frequency of Questions Offered on *Inbound* Exams

Accounting	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Assets and Liabilities	32	46.88%	6607	49.86%	*44	43.62%	46.96%	51.96%	60.64%
Audits, Auditing, and Balance Sheets	66	46.97%	12524	49.84%	*43	43.92%	47.16%	51.99%	58.83%
Capital Investments	16	43.75%	3395	45.67%	*52	37.06%	41.81%	49.70%	59.60%
Credits and Debits	19	63.16%	3188	51.75%	*86	43.92%	50.00%	55.00%	62.50%
Equity	8	62.50%	1644	40.59%	*97	30.71%	38.81%	43.59%	51.53%
Net Present Value	19	52.63%	4080	49.82%	*65	41.30%	46.98%	52.38%	60.92%
Summary	**160**	**50%**	**31438**	**49.04%**	**62**	**43.17%**	**47.03%**	**50.33%**	**57.50%**

Frequency correct values in this table are rounded for easier display. To see the raw value 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.

Business Finance Score Comparison
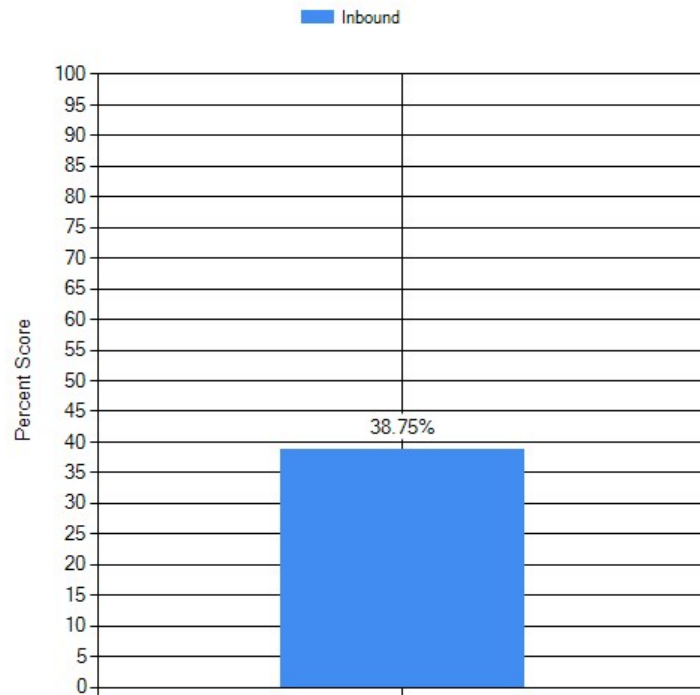
Inbound

-100.00% Percentage change from Inbound to Outbound
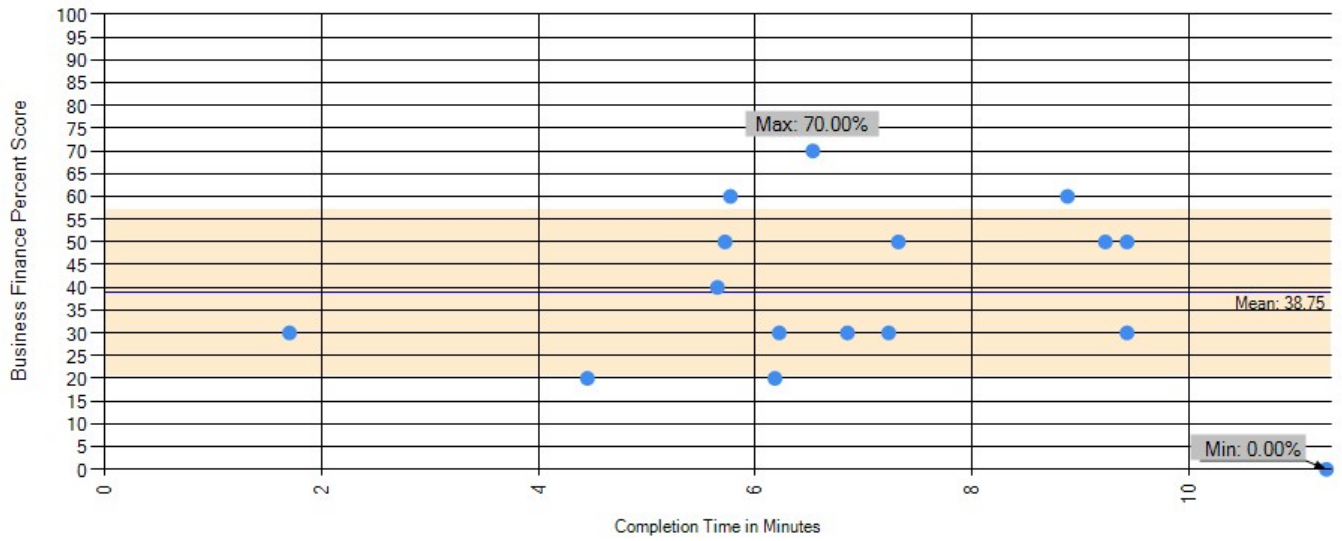
Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 7

Business Finance Assessment Summary

Assessment Summary Statistics

Business Finance	Inbound
Sample Size	16
Mean Score	38.75%
Standard Deviation	18.21
Min Score	0%
Max Score	70%
Median Score	35%
Mode	30%

Inbound Exam Business Finance Result
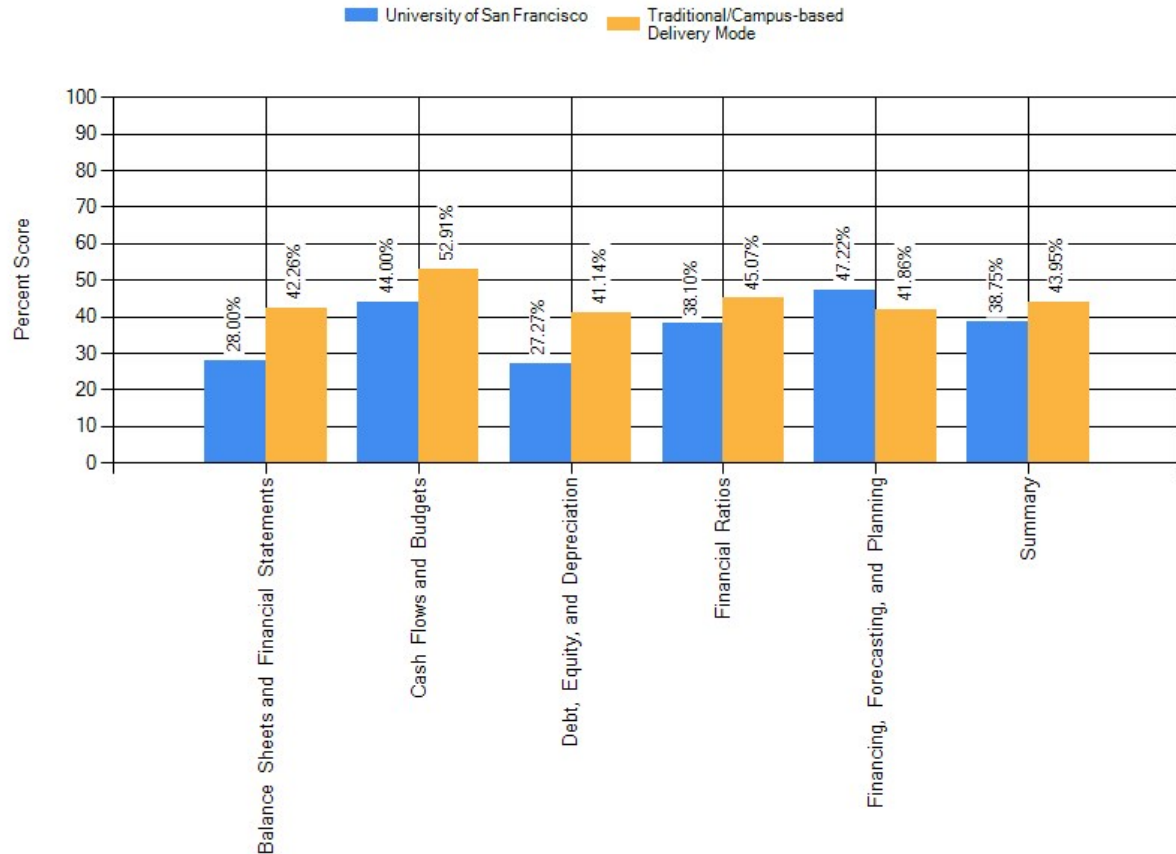

Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 7.00

Mean Score: 38.75%, Max Score: 70.00%, Min Score: 0.00%

Standard Deviation: 18.21

* Results are sorted by number of minutes taken to complete the topic.

# **Business Finance** Subject Score Comparison *Inbound Exam*

Frequency of Questions Offered on *Inbound* Exams

Business Finance	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Balance Sheets and Financial Statements	25	28.00%	4500	42.26%	*7	33.33%	38.18%	45.29%	56.42%
Cash Flows and Budgets	25	44.00%	3376	52.91%	*25	43.94%	50.83%	58.66%	65.90%
Debt, Equity, and Depreciation	11	27.27%	1816	41.14%	*11	31.93%	37.03%	42.28%	56.74%
Financial Ratios	63	38.10%	10676	45.07%	*24	38.13%	41.08%	47.46%	56.32%
Financing, Forecasting, and Planning	36	47.22%	11102	41.86%	*73	34.96%	39.39%	43.04%	50.92%
Summary	**160**	**38.75%**	**31470**	**43.95%**	**32**	**38.18%**	**40.64%**	**43.72%**	**55.37%**

Frequency correct values in this table are rounded for easier display. To see the raw value 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.

Business Integration and Strategic Management Score Comparison
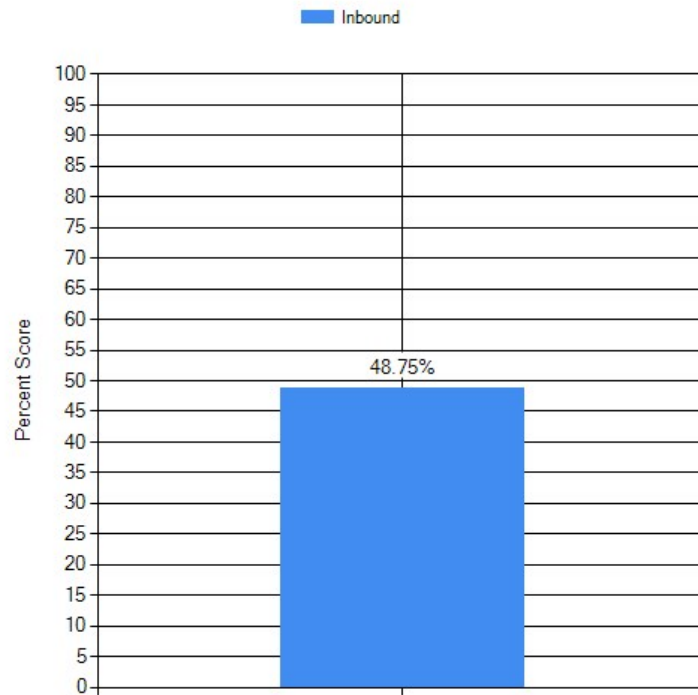
-100.00% Percentage change from Inbound to Outbound
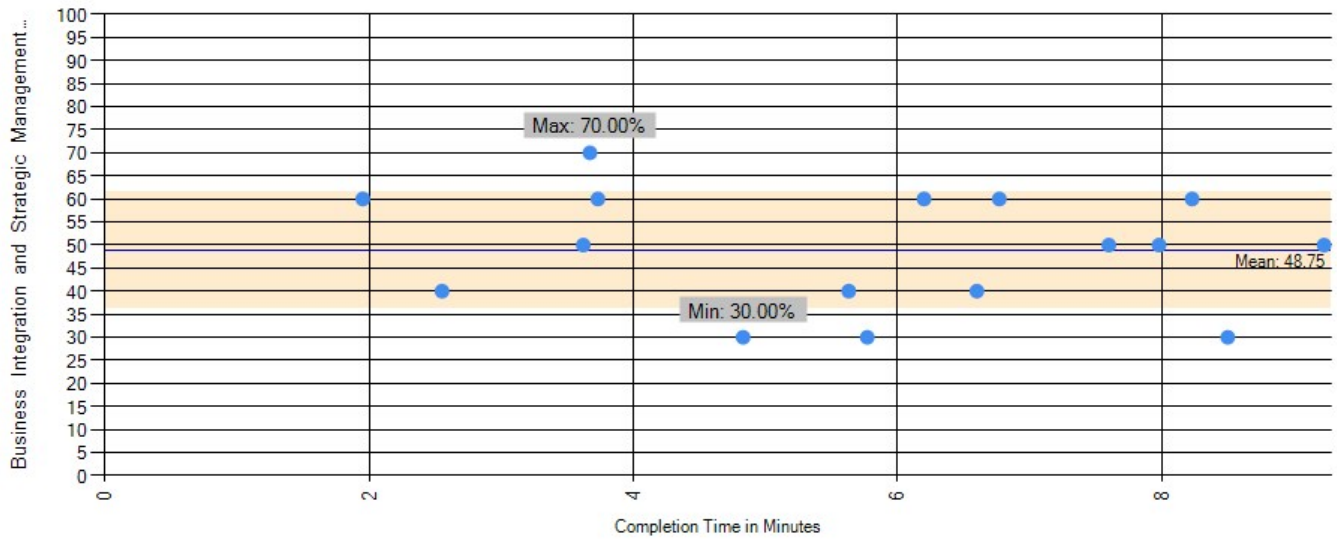
Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 5.8

Business Integration and Strategic Management Assessment Summary

Assessment Summary Statistics

Business Integration and Strategic Management	Inbound
Sample Size	16
Mean Score	48.75%
Standard Deviation	12.58
Min Score	30%
Max Score	70%
Median Score	50%
Mode	60%

Inbound Exam Business Integration and Strategic Management Result
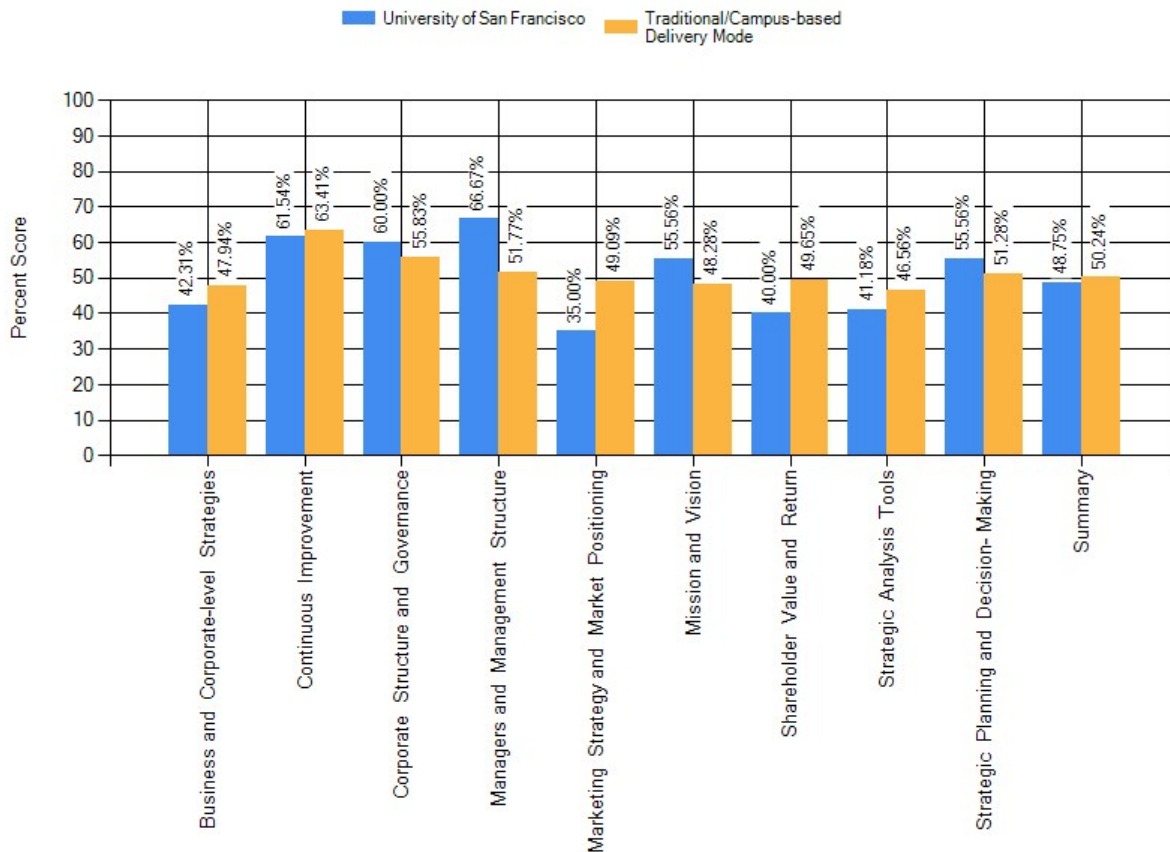

Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 5.80

Mean Score: 48.75%, Max Score: 70.00%, Min Score: 30.00%

Standard Deviation: 12.58

* Results are sorted by number of minutes taken to complete the topic.

Business Integration and Strategic Management Subject Score Comparison *Inbound Exam*


Frequency of Questions Offered on *Inbound* Exams

Business Integration and Strategic Management	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Business and Corporate-level Strategies	26	42.31%	5858	47.94%	*28	40.75%	45.59%	49.79%	59.40%
Continuous Improvement	13	61.54%	1773	63.41%	*51	57.14%	60.28%	65.11%	75.04%
Corporate Structure and Governance	10	60.00%	2225	55.83%	*66	46.11%	51.69%	59.57%	72.02%
Managers and Management Structure	9	66.67%	2317	51.77%	*89	42.86%	49.33%	55.66%	65.55%
Marketing Strategy and Market Positioning	20	35.00%	4358	49.09%	*13	40.35%	46.30%	52.65%	60.38%
Mission and Vision	9	55.56%	1559	48.28%	*77	38.89%	44.74%	51.28%	57.58%
Shareholder Value and Return	20	40.00%	2011	49.65%	*21	42.38%	48.57%	52.76%	63.28%
Strategic Analysis Tools	17	41.18%	2728	46.56%	*32	39.42%	42.71%	47.15%	58.65%
Strategic Planning and Decision-Making	36	55.56%	5106	51.28%	*69	43.33%	48.38%	53.70%	64.49%
Summary	**160**	**48.75%**	**27935**	**50.24%**	**57**	**44.13%**	**46.93%**	**50.33%**	**61.65%**

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

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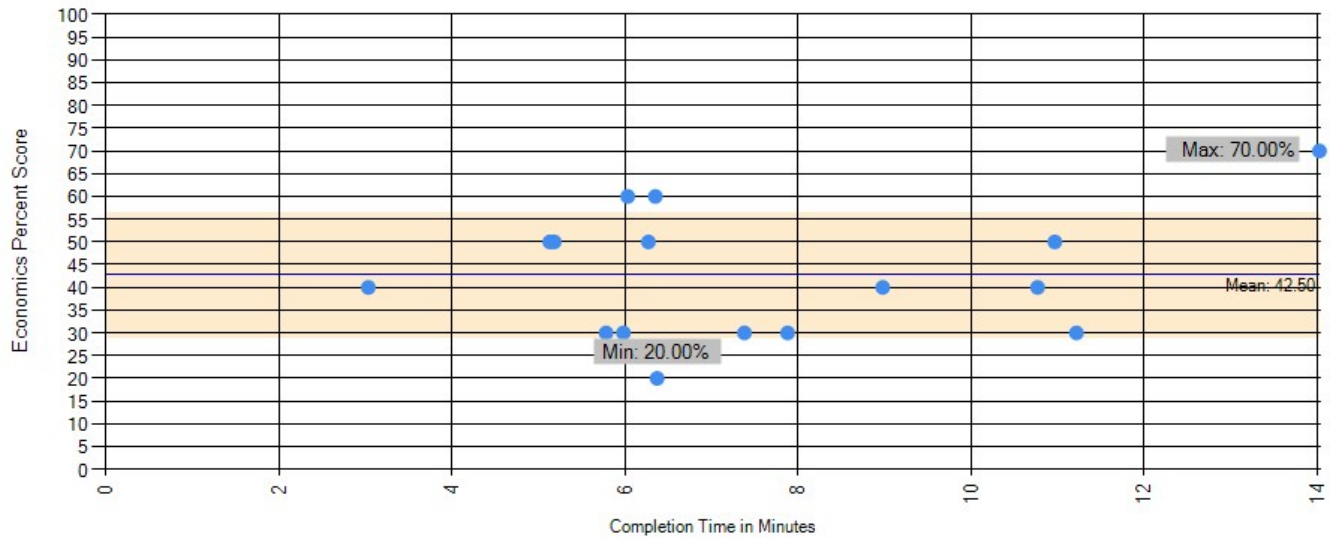# Economics Score Comparison
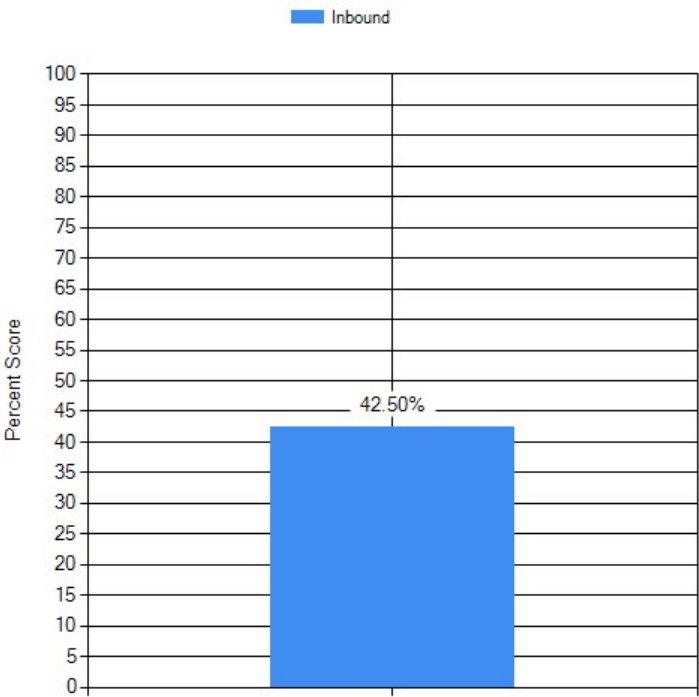
Inbound

-100.00% Percentage change from Inbound to Outbound

Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 7.6

Economics Assessment Summary

Assessment Summary Statistics

Economics	Inbound
Sample Size	16
Mean Score	42.50%
Standard Deviation	13.90
Min Score	20%
Max Score	70%
Median Score	40%
Mode	30%

Inbound Exam Economics Result
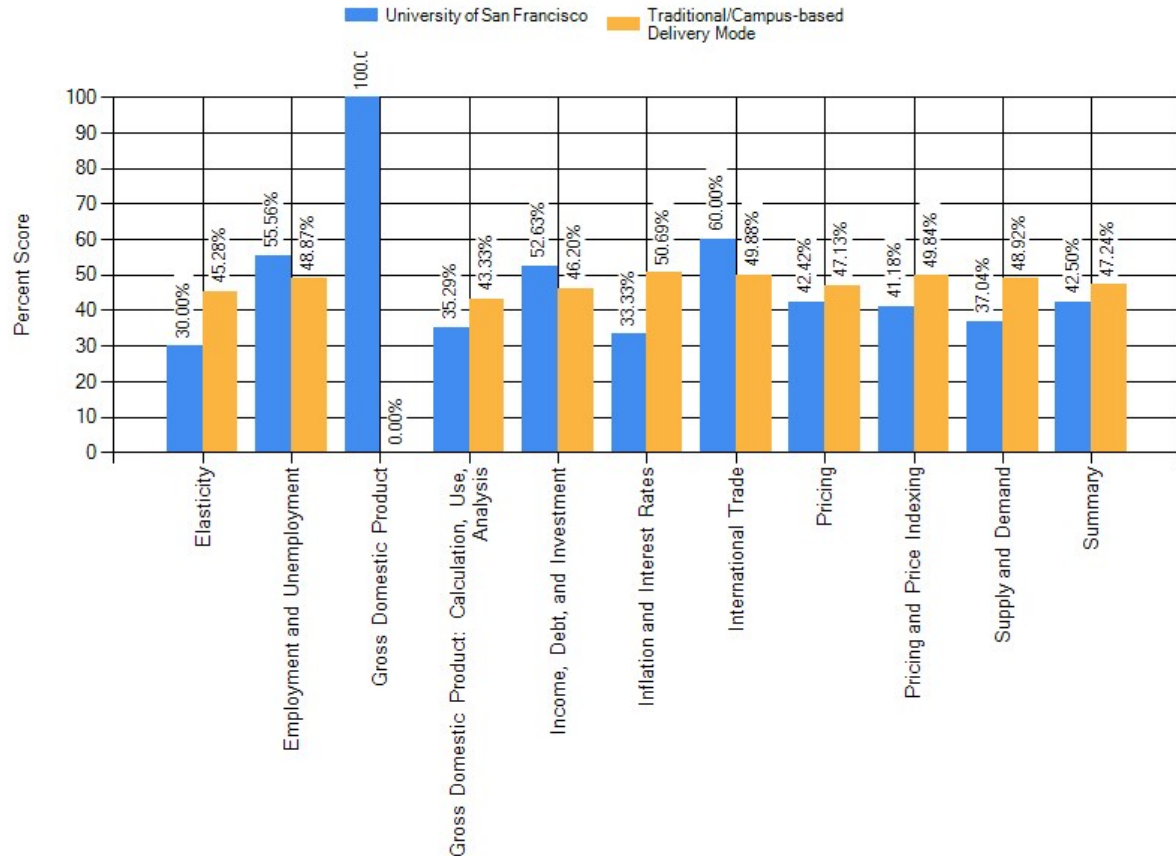

Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 7.58

Mean Score: 42.50%, Max Score: 70.00%, Min Score: 20.00%

Standard Deviation: 13.90

* Results are sorted by number of minutes taken to complete the topic.

Economics Subject Score Comparison *Inbound Exam*

Frequency of Questions Offered on *Inbound* Exams

Economics	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Elasticity	20	30.00%	3169	45.28%	*5	36.38%	41.81%	48.41%	57.84%
Employment and Unemployment	18	55.56%	3414	48.87%	*75	41.03%	45.75%	52.16%	61.32%
Gross Domestic Product	1	100.00%	0	-	*1	0.00%	0.00%	0.00%	0.00%
Gross Domestic Product: Calculation, Use, Analysis	17	35.29%	4495	43.33%	*26	35.05%	39.64%	46.31%	54.84%
Income, Debt, and Investment	19	52.63%	3338	46.20%	*72	38.15%	44.55%	48.20%	59.22%
Inflation and Interest Rates	3	33.33%	722	50.69%	*9	45.23%	49.21%	54.05%	59.38%
International Trade	5	60.00%	695	49.88%	*90	42.42%	45.16%	54.55%	58.82%
Pricing	33	42.42%	6043	47.13%	*33	40.39%	46.46%	50.86%	55.08%
Pricing and Price Indexing	17	41.18%	2113	49.84%	*21	42.11%	45.48%	54.84%	61.74%
Supply and Demand	27	37.04%	6077	48.92%	*12	41.36%	45.66%	50.82%	60.26%
Summary	**160**	**42.5%**	**30066**	**47.24%**	**34**	**41.22%**	**44.01%**	**47.28%**	**58.02%**

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

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Economics: Macroeconomics Score Comparison
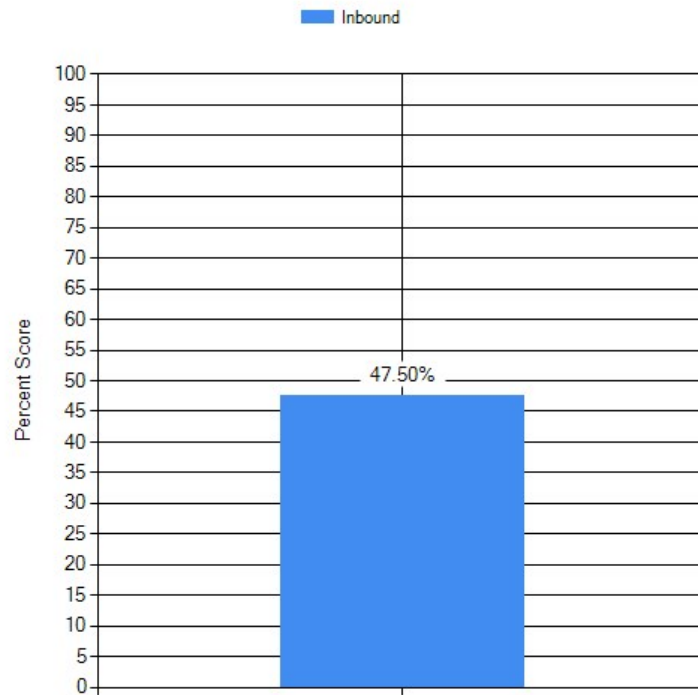
Inbound

-100.00% Percentage change from Inbound to Outbound

Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 3.9

Economics: Macroeconomics Assessment Summary

Assessment Summary Statistics

Economics: Macroeconomics	Inbound
Sample Size	16
Mean Score	47.50%
Standard Deviation	19.15
Min Score	20%
Max Score	80%
Median Score	40%
Mode	40%

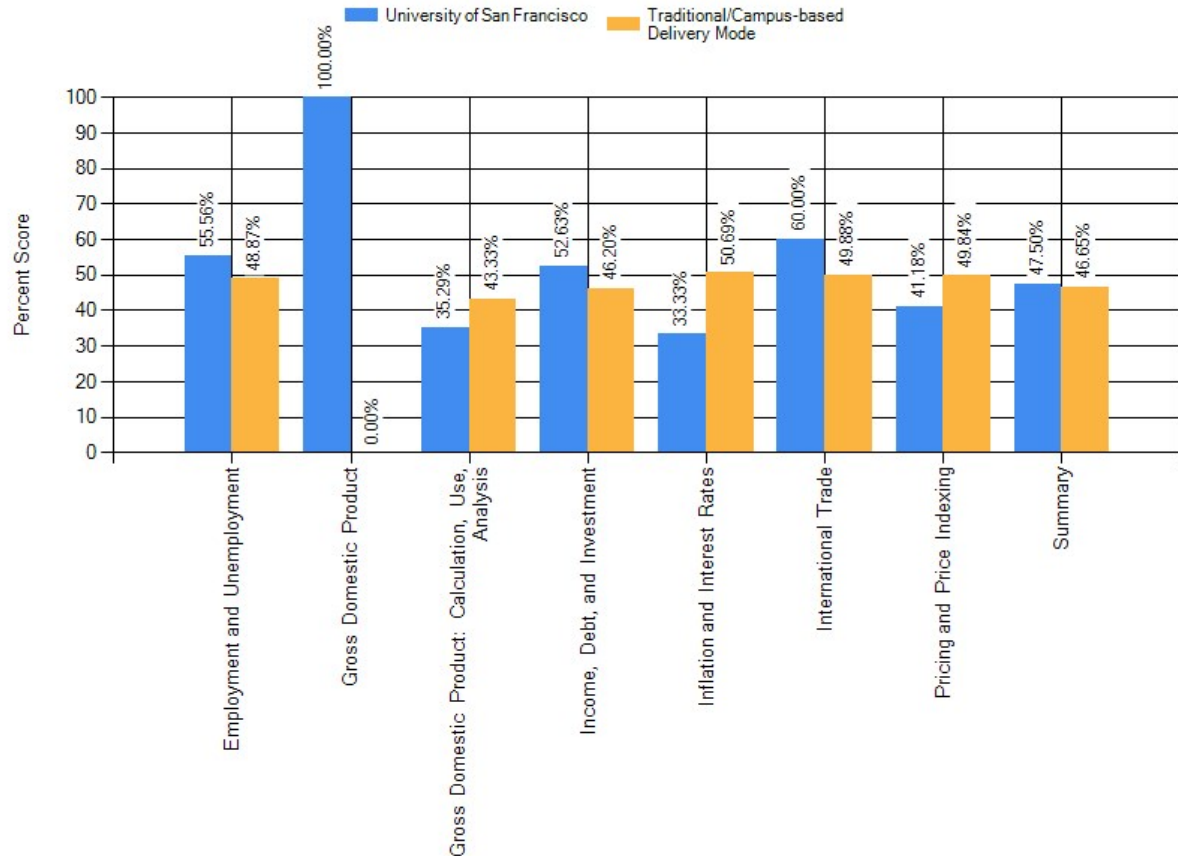# Inbound Exam Economics: Macroeconomics Result
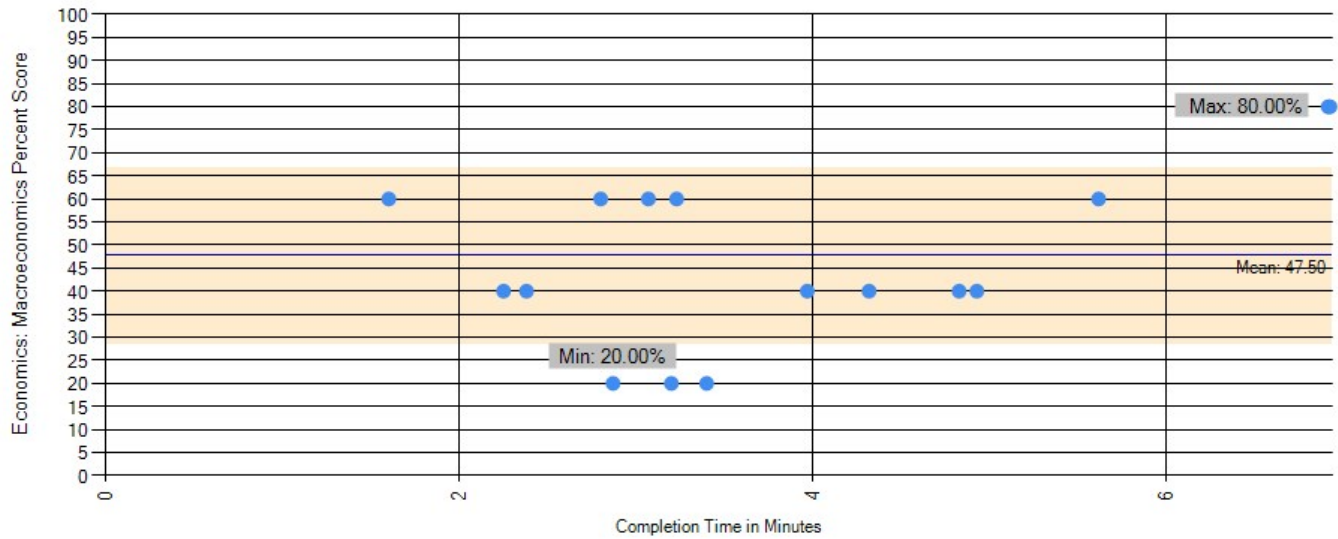
Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 3.90

Mean Score: 47.50%, Max Score: 80.00%, Min Score: 20.00%

Standard Deviation: 19.15

* Results are sorted by number of minutes taken to complete the topic.

# Economics: Macroeconomics Subject Score Comparison *Inbound Exam*

Frequency of Questions Offered on *Inbound* Exams

Economics: Macroeconomics	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Employment and Unemployment	18	55.56%	3414	48.87%	*75	41.03%	45.75%	52.16%	61.32%
Gross Domestic Product	1	100.00%	0	-	*1	0.00%	0.00%	0.00%	0.00%
Gross Domestic Product: Calculation, Use, Analysis	17	35.29%	4495	43.33%	*26	35.05%	39.64%	46.31%	54.84%
Income, Debt, and Investment	19	52.63%	3338	46.20%	*72	38.15%	44.55%	48.20%	59.22%
Inflation and Interest Rates	3	33.33%	722	50.69%	*9	45.23%	49.21%	54.05%	59.38%
International Trade	5	60.00%	695	49.88%	*90	42.42%	45.16%	54.55%	58.82%
Pricing and Price Indexing	17	41.18%	2113	49.84%	*21	42.11%	45.48%	54.84%	61.74%
Summary	**80**	**47.5%**	**14777**	**46.65%**	**64**	**40.63%**	**44.00%**	**47.85%**	**57.70%**

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

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Economics: Microeconomics Score Comparison
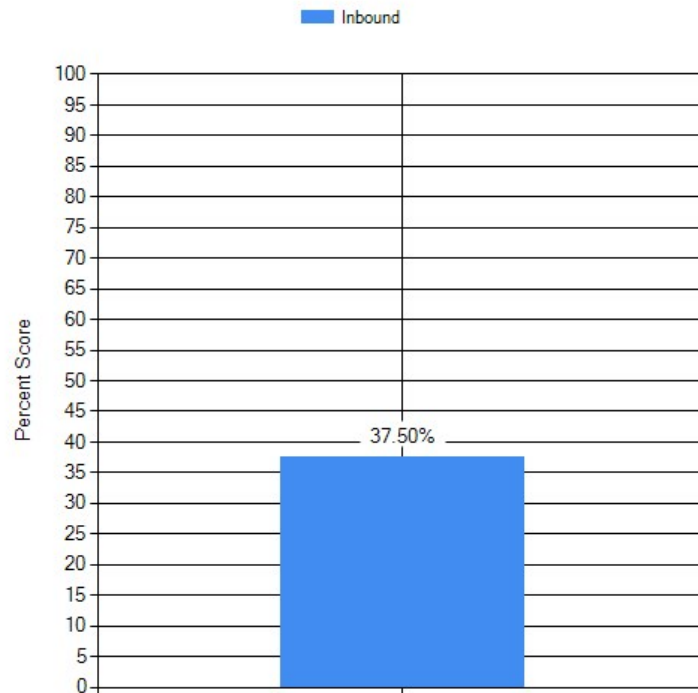
■ Inbound

-100.00% Percentage change from Inbound to Outbound

Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 3.7

Economics: Microeconomics Assessment Summary

Assessment Summary Statistics

Economics: Microeconomics	Inbound
Sample Size	16
Mean Score	37.50%
Standard Deviation	21.76
Min Score	0%
Max Score	80%
Median Score	40%
Mode	20%

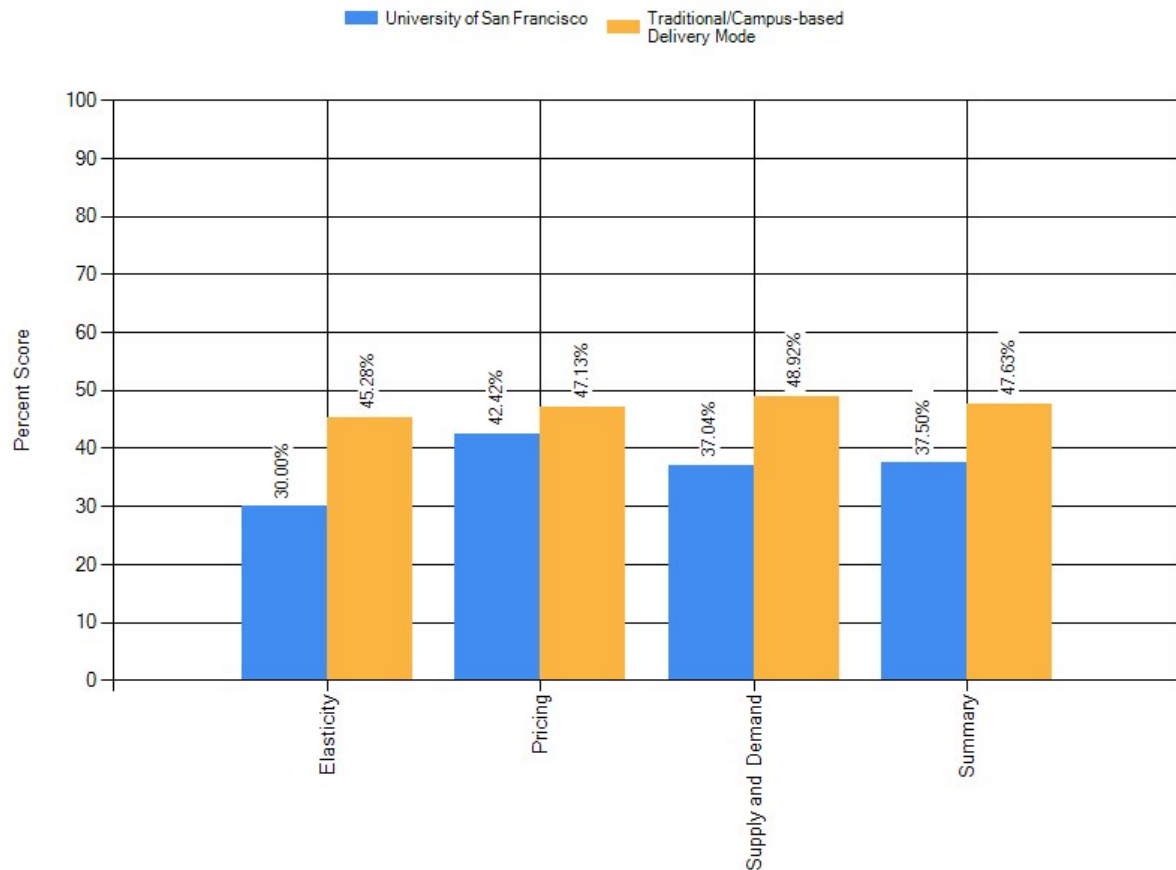# Inbound Exam Economics: Microeconomics Result
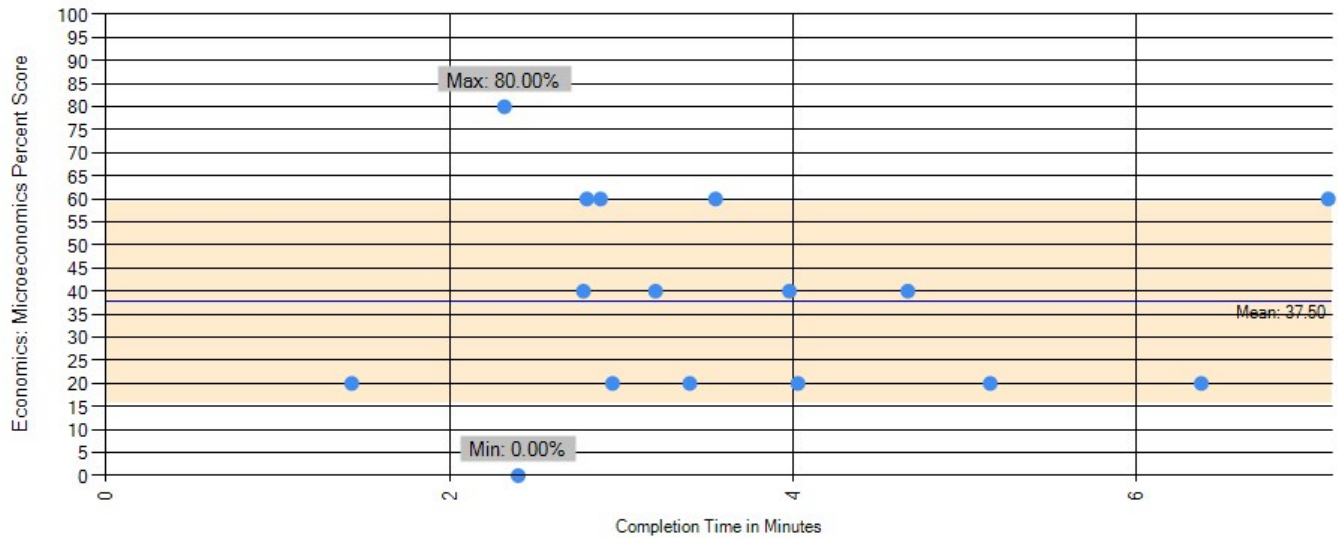
Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 3.68

Mean Score: 37.50%, Max Score: 80.00%, Min Score: 0.00%

Standard Deviation: 21.76

* Results are sorted by number of minutes taken to complete the topic.

# Economics: Microeconomics Subject Score Comparison *Inbound Exam*

Frequency of Questions Offered on *Inbound* Exams

Economics: Microeconomics	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Elasticity	20	30.00%	3169	45.28%	*5	36.38%	41.81%	48.41%	57.84%
Pricing	33	42.42%	6043	47.13%	*33	40.39%	46.46%	50.86%	55.08%
Supply and Demand	27	37.04%	6077	48.92%	*12	41.36%	45.66%	50.82%	60.26%
Summary	**80**	**37.5%**	**15289**	**47.63%**	**11**	**41.65%**	**44.86%**	**47.96%**	**57.55%**

Frequency correct values in this table are rounded for easier display. To see the raw value 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.

Global Dimensions of Business Score Comparison
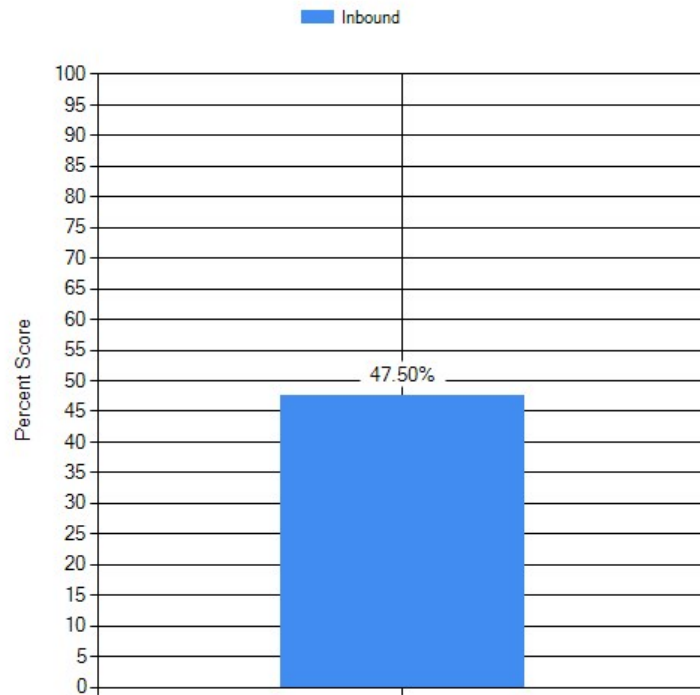
-100.00% Percentage change from Inbound to Outbound
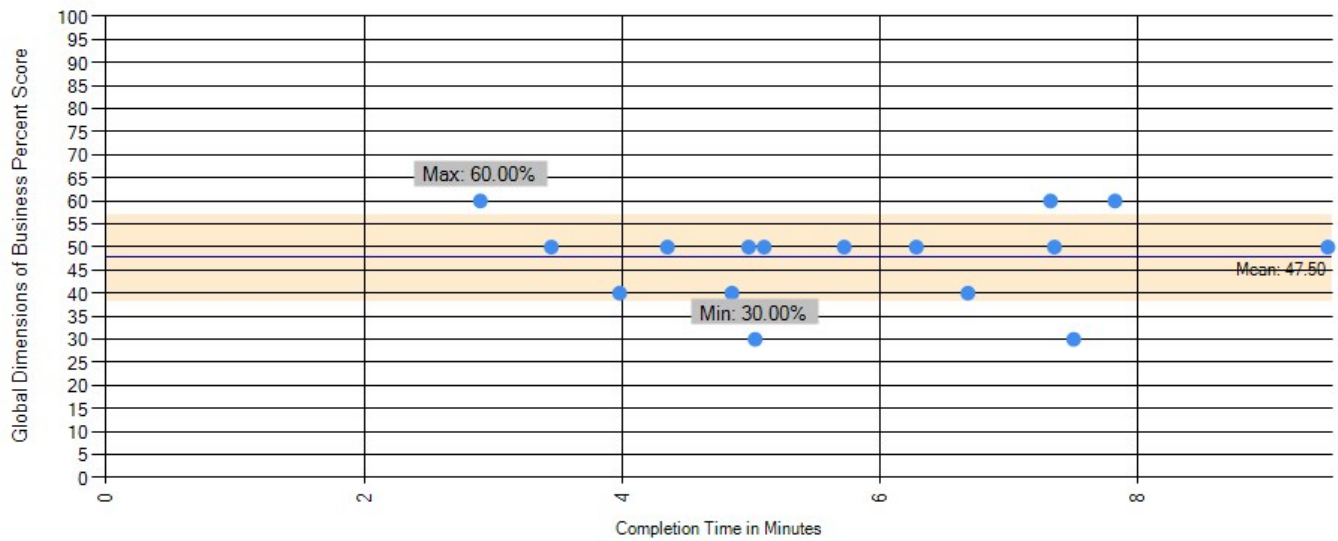
Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 5.8

Global Dimensions of Business Assessment Summary

Assessment Summary Statistics

Global Dimensions of Business	Inbound
Sample Size	16
Mean Score	47.50%
Standard Deviation	9.31
Min Score	30%
Max Score	60%
Median Score	50%
Mode	50%

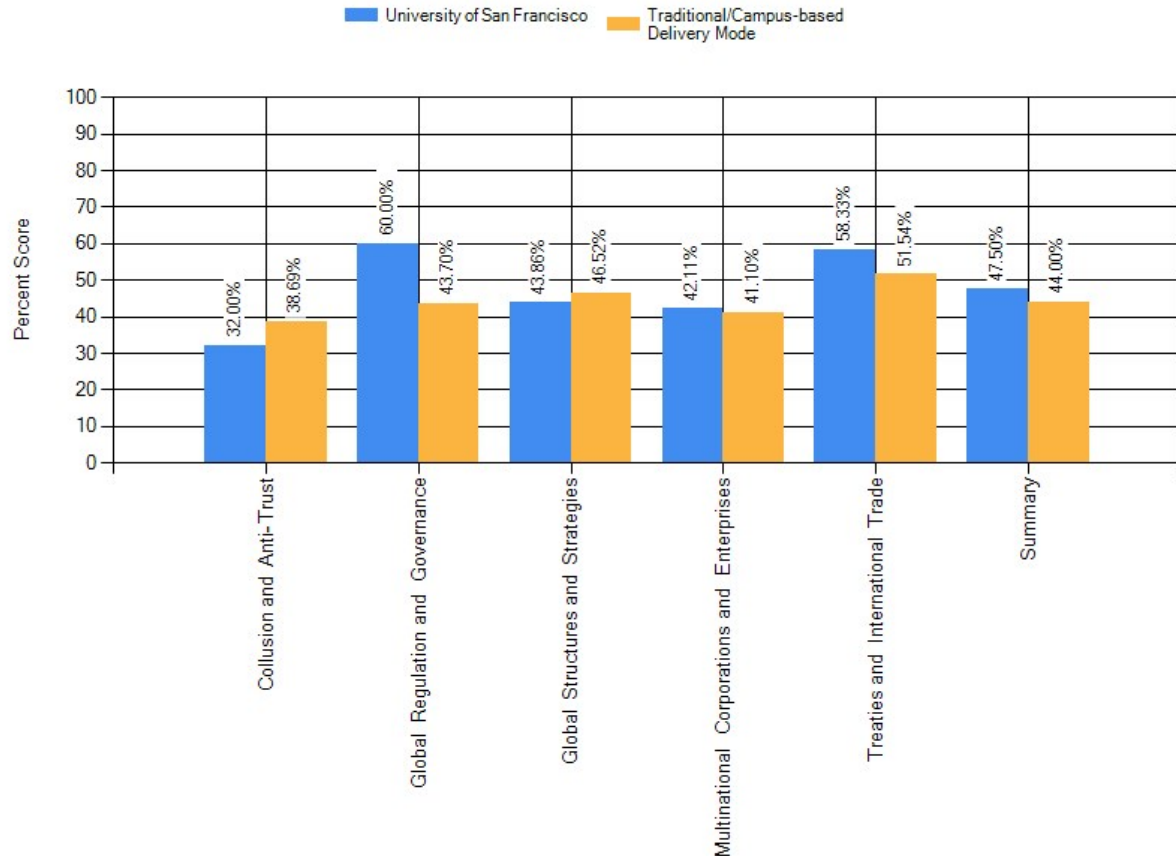# Inbound Exam Global Dimensions of Business Result

Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 5.80

Mean Score: 47.50%, Max Score: 60.00%, Min Score: 30.00%

Standard Deviation: 9.31

* Results are sorted by number of minutes taken to complete the topic.

# Global Dimensions of Business Subject Score Comparison *Inbound Exam*

Legend: University of San Francisco (blue) — Traditional/Campus-based Delivery Mode (orange)

Chart values (Percent Score):

Category	University of San Francisco	Traditional/Campus-based
Collusion and Anti-Trust	32.00%	38.69%
Global Regulation and Governance	60.00%	43.70%
Global Structures and Strategies	43.86%	46.52%
Multinational Corporations and Enterprises	42.11%	41.10%
Treaties and International Trade	58.33%	51.54%
Summary	47.50%	44.00%

Frequency of Questions Offered on *Inbound* Exams

Global Dimensions of Business	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Collusion and Anti-Trust	25	32.00%	4178	38.69%	*22	32.23%	36.53%	41.21%	49.31%
Global Regulation and Governance	35	60.00%	4417	43.70%	*96	38.49%	42.31%	46.28%	52.76%
Global Structures and Strategies	57	43.86%	7591	46.52%	*42	40.77%	44.40%	48.42%	56.31%
Multinational Corporations and Enterprises	19	42.11%	3170	41.10%	*57	34.29%	39.34%	45.16%	50.79%
Treaties and International Trade	24	58.33%	3506	51.54%	*77	44.64%	48.76%	53.41%	63.96%
Summary	160	47.5%	22862	44.00%	77	38.95%	41.67%	44.90%	51.04%

Frequency correct values in this table are rounded for easier display. To see the raw value 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.

Information Management Systems Score Comparison
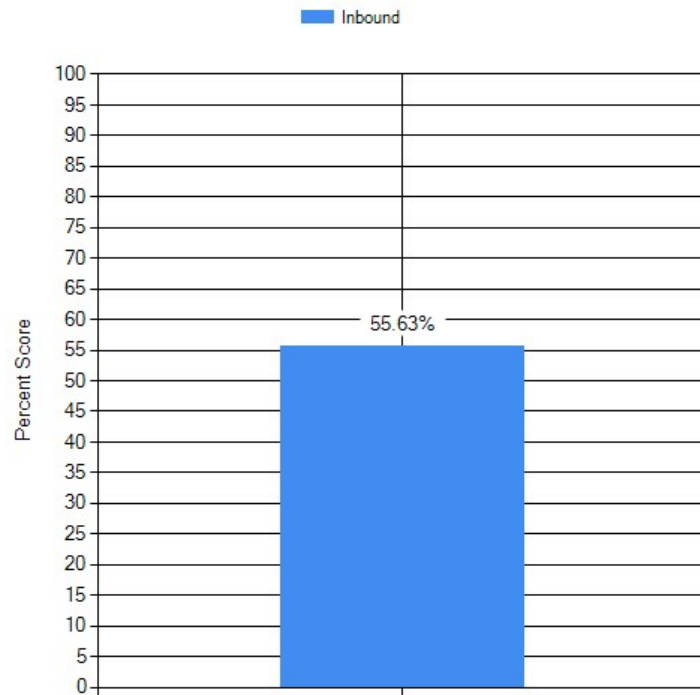
Inbound

-100.00% Percentage change from Inbound to Outbound
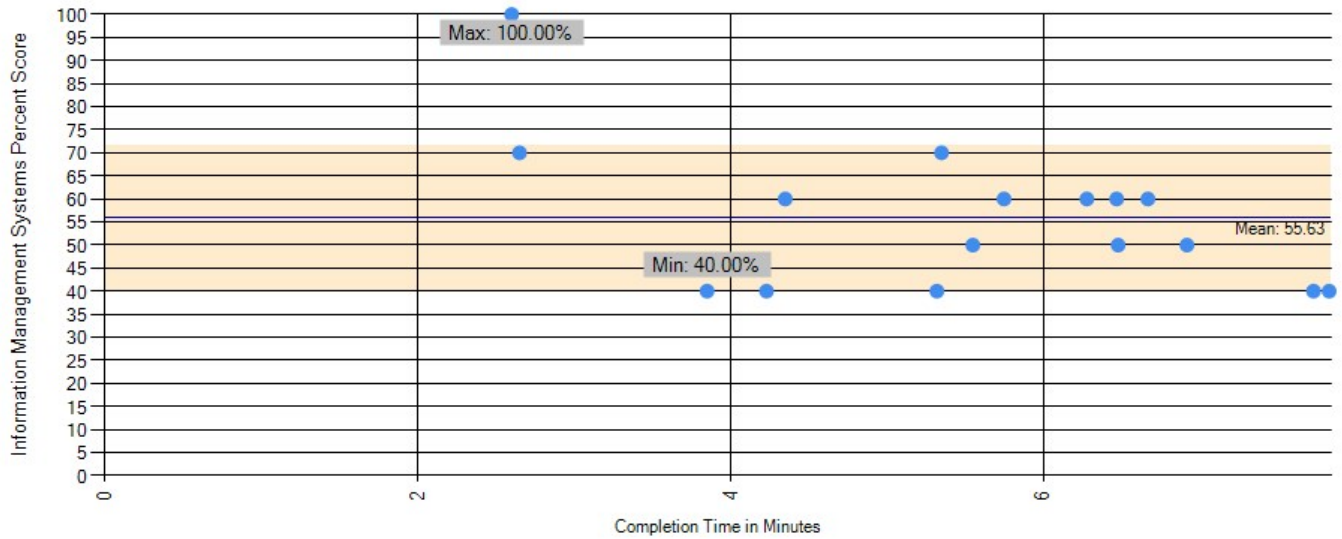
Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 5.5

Information Management Systems Assessment Summary

Assessment Summary Statistics

Information Management Systems	Inbound
Sample Size	16
Mean Score	55.63%
Standard Deviation	15.90
Min Score	40%
Max Score	100%
Median Score	55%
Mode	60%

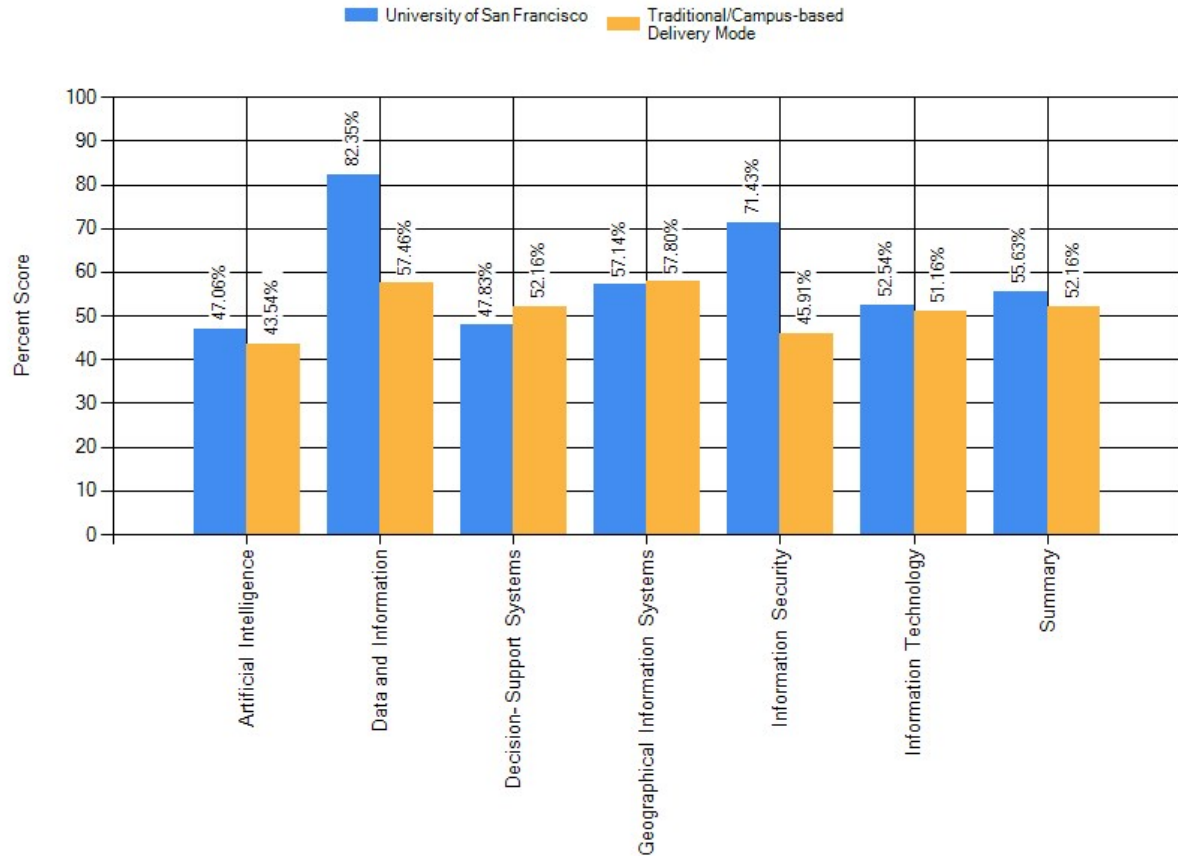# Inbound Exam Information Management Systems Result

Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 5.50

Mean Score: 55.63%, Max Score: 100.00%, Min Score: 40.00%

Standard Deviation: 15.90

* Results are sorted by number of minutes taken to complete the topic.

## **Information Management Systems** Subject Score Comparison *Inbound Exam*

Frequency of Questions Offered on *Inbound* Exams

Information Management Systems	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Artificial Intelligence	17	47.06%	989	43.54%	*52	34.13%	45.03%	48.98%	54.93%
Data and Information	17	82.35%	1309	57.46%	*99	52.02%	55.36%	59.18%	69.22%
Decision-Support Systems	46	47.83%	3430	52.16%	*39	44.62%	49.43%	56.25%	62.92%
Geographical Information Systems	7	57.14%	1017	57.80%	*37	53.30%	58.97%	61.29%	65.38%
Information Security	14	71.43%	696	45.91%	*99	42.86%	46.85%	48.66%	53.55%
Information Technology	59	52.54%	4221	51.16%	*63	47.12%	50.00%	52.74%	60.55%
Summary	**160**	**55.63%**	**11662**	**52.16%**	**71**	**46.83%**	**50.90%**	**54.97%**	**61.13%**

Frequency correct values in this table are rounded for easier display. To see the raw value 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.

Legal Environment of Business Score Comparison
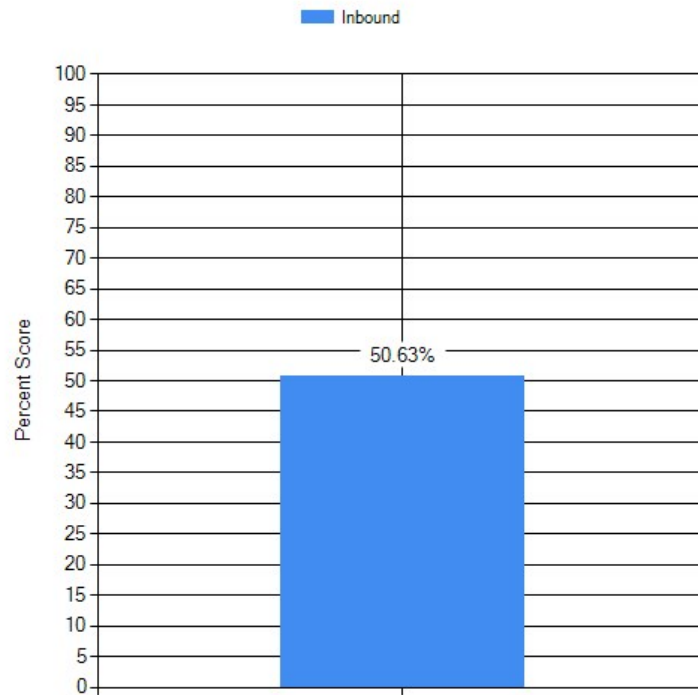
■ Inbound

-100.00% Percentage change from Inbound to Outbound

Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 6.5

Legal Environment of Business Assessment Summary

Assessment Summary Statistics

Legal Environment of Business	Inbound
Sample Size	16
Mean Score	50.63%
Standard Deviation	16.92
Min Score	20%
Max Score	90%
Median Score	50%
Mode	50%

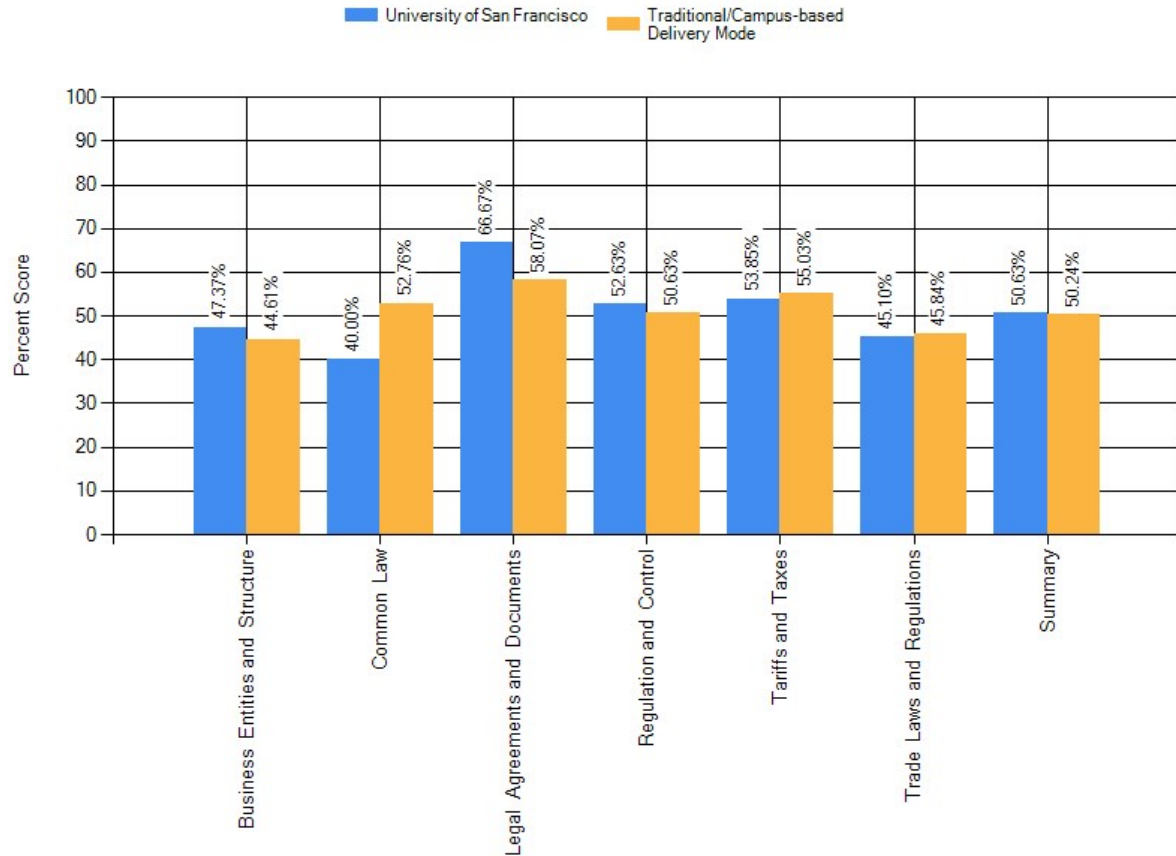# Inbound Exam Legal Environment of Business Result

Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 6.47

Mean Score: 50.63%, Max Score: 90.00%, Min Score: 20.00%

Standard Deviation: 16.92

* Results are sorted by number of minutes taken to complete the topic.

# **Legal Environment of Business** Subject Score Comparison *Inbound Exam*

Frequency of Questions Offered on *Inbound* Exams

Legal Environment of Business	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Business Entities and Structure	19	47.37%	1452	44.61%	*61	36.55%	41.14%	49.45%	58.38%
Common Law	15	40.00%	910	52.76%	*16	42.32%	51.19%	60.31%	64.10%
Legal Agreements and Documents	24	66.67%	1699	58.07%	*79	49.53%	55.97%	62.71%	69.80%
Regulation and Control	38	52.63%	2568	50.63%	*64	44.13%	47.41%	52.81%	61.80%
Tariffs and Taxes	13	53.85%	904	55.03%	*51	41.99%	51.42%	59.22%	72.96%
Trade Laws and Regulations	51	45.10%	3708	45.84%	*51	38.89%	42.71%	49.00%	56.07%
Summary	**160**	**50.63%**	**11241**	**50.24%**	**55**	**43.33%**	**46.33%**	**55.58%**	**59.93%**

Frequency correct values in this table are rounded for easier display. To see the raw value 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.

Management Score Comparison
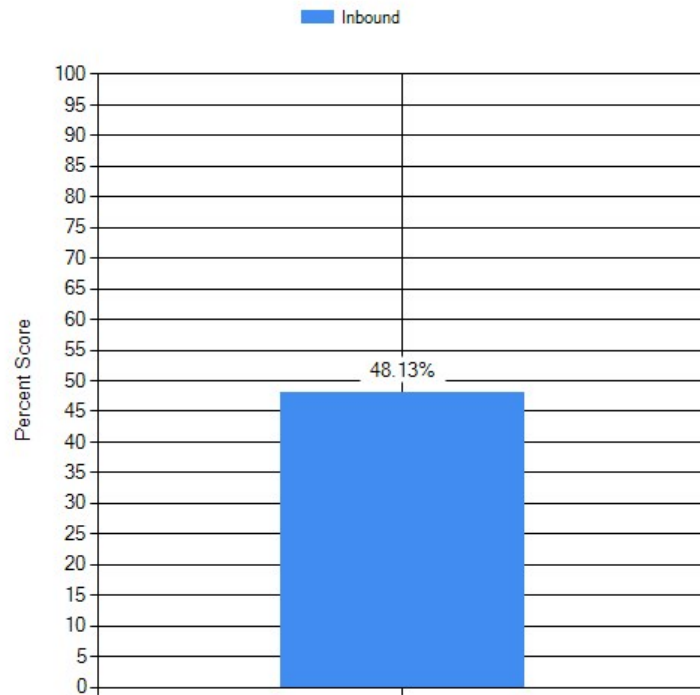
Inbound

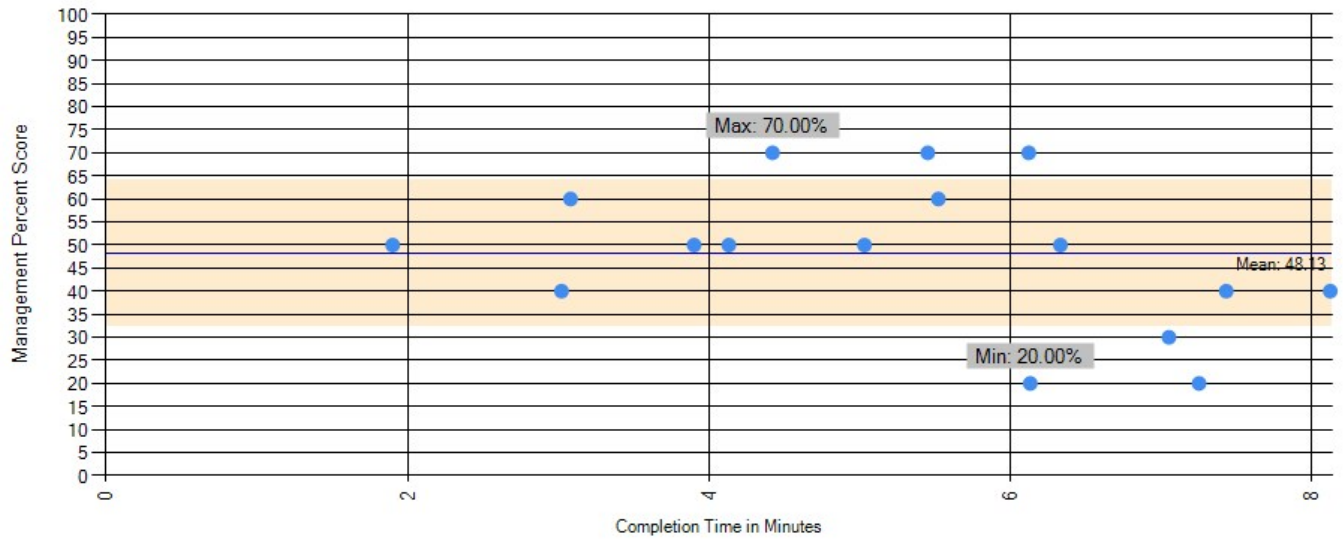-100.00% Percentage change from Inbound to Outbound

Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 5.3

Management Assessment Summary

Assessment Summary Statistics

Management	Inbound
Sample Size	16
Mean Score	48.13%
Standard Deviation	16.01
Min Score	20%
Max Score	70%
Median Score	50%
Mode	50%

Inbound Exam Management Result
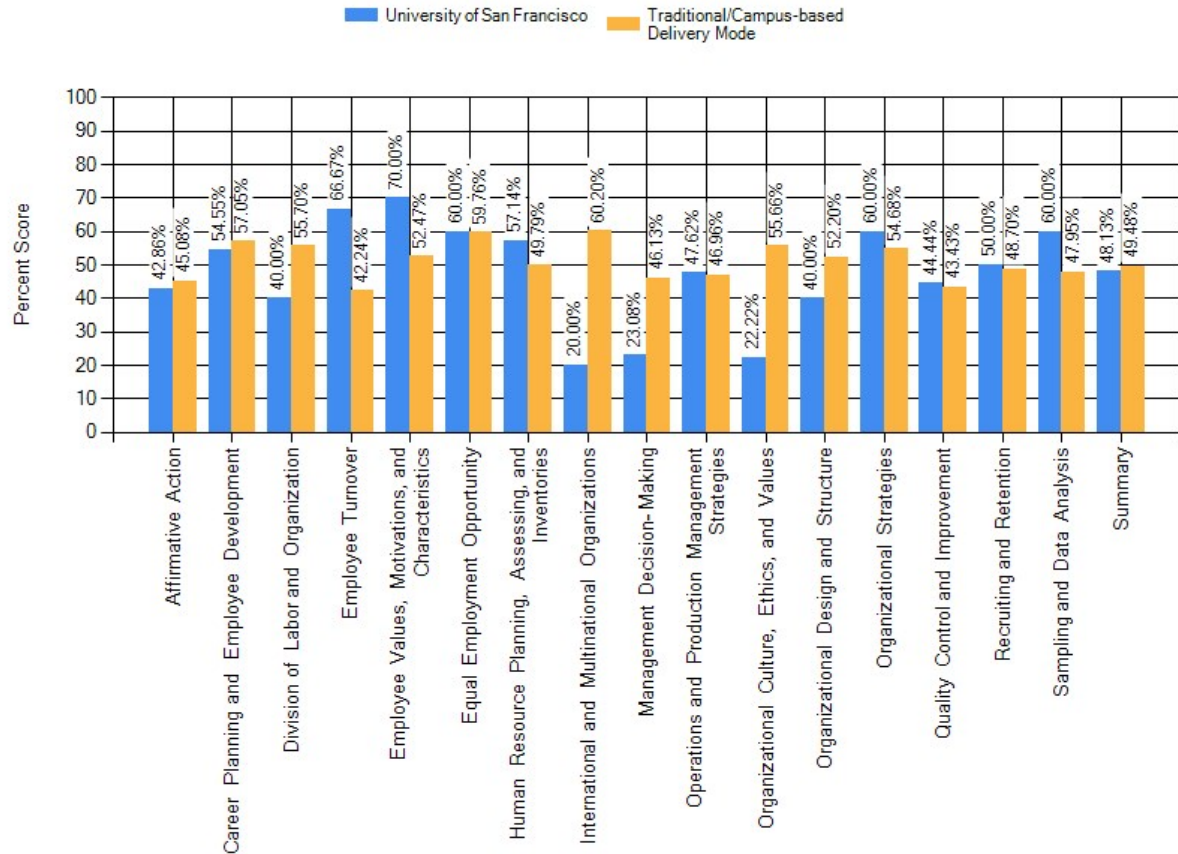

Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 5.30

Mean Score: 48.13%, Max Score: 70.00%, Min Score: 20.00%

Standard Deviation: 16.01

* Results are sorted by number of minutes taken to complete the topic.

Management Subject Score Comparison *Inbound Exam*

Frequency of Questions Offered on *Inbound* Exams

Management	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Affirmative Action	7	42.86%	823	45.08%	*43	32.26%	43.48%	51.52%	60.88%
Career Planning and Employee Development	11	54.55%	1747	57.05%	*43	50.00%	54.89%	60.25%	66.67%
Division of Labor and Organization	5	40.00%	316	55.70%	*2	52.35%	54.64%	56.25%	63.87%
Employee Turnover	9	66.67%	1192	42.24%	*97	33.86%	40.00%	44.25%	52.80%
Employee Values, Motivations, and Characteristics	10	70.00%	1433	52.47%	*92	41.71%	50.74%	58.01%	64.31%
Equal Employment Opportunity	5	60.00%	758	59.76%	*51	55.22%	57.54%	66.67%	71.70%
Human Resource Planning, Assessing, and Inventories	21	57.14%	2702	49.79%	*75	41.23%	48.78%	53.65%	63.38%
International and Multinational Organizations	5	20.00%	358	60.20%	*1	55.36%	58.06%	61.82%	68.38%
Management Decision-Making	13	23.08%	2145	46.13%	*2	36.99%	43.44%	51.53%	62.78%
Operations and Production Management Strategies	21	47.62%	4100	46.96%	*60	40.00%	44.44%	49.29%	57.62%
Organizational Culture, Ethics, and Values	9	22.22%	726	55.66%	*1	47.42%	50.68%	60.43%	69.25%
Organizational Design and Structure	10	40.00%	2455	52.20%	*16	45.71%	51.16%	55.56%	61.54%
Organizational Strategies	5	60.00%	1176	54.68%	*73	48.86%	53.91%	58.31%	63.65%
Quality Control and Improvement	9	44.44%	993	43.43%	*62	35.29%	38.23%	47.36%	57.84%
Recruiting and Retention	10	50.00%	3179	48.70%	*53	42.64%	48.78%	52.50%	58.97%
Sampling and Data Analysis	10	60.00%	2134	47.95%	*84	39.36%	44.44%	53.22%	60.62%
Summary	**160**	**48.13%**	**26237**	**49.48%**	**52**	**43.37%**	**47.01%**	**51.08%**	**58.95%**

Frequency correct values in this table are rounded for easier display. To see the raw value 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.

Management: Human Resource Management Score Comparison
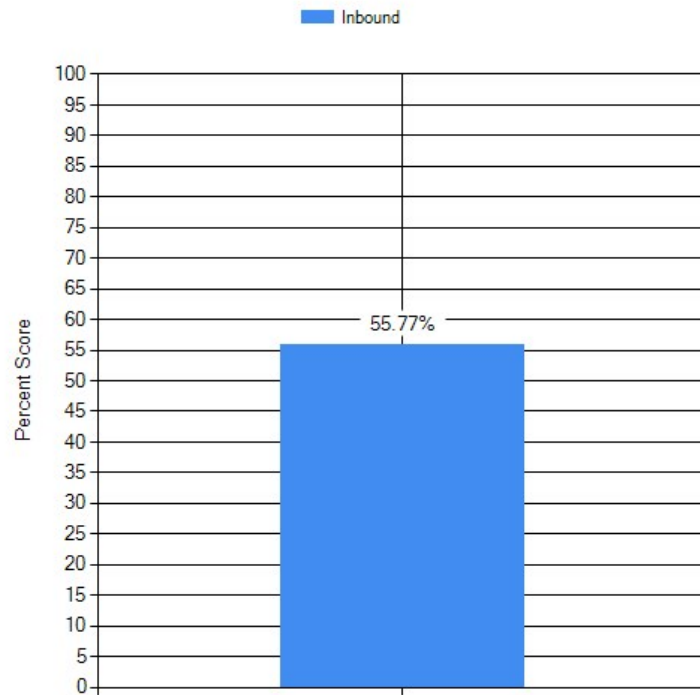
Inbound

-100.00% Percentage change from Inbound to Outbound
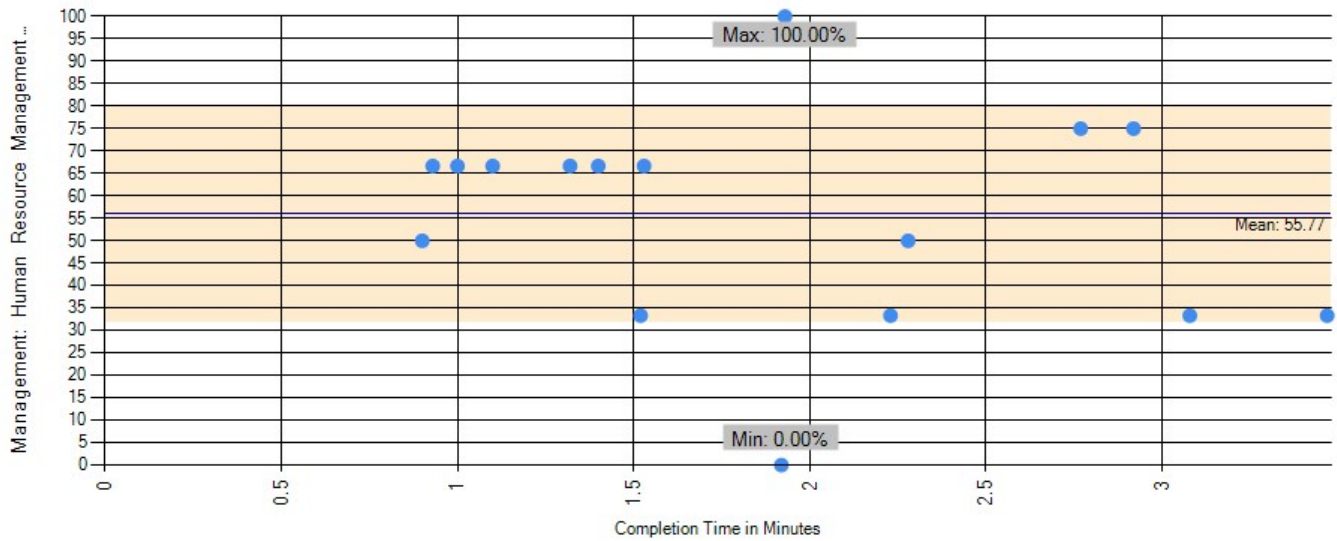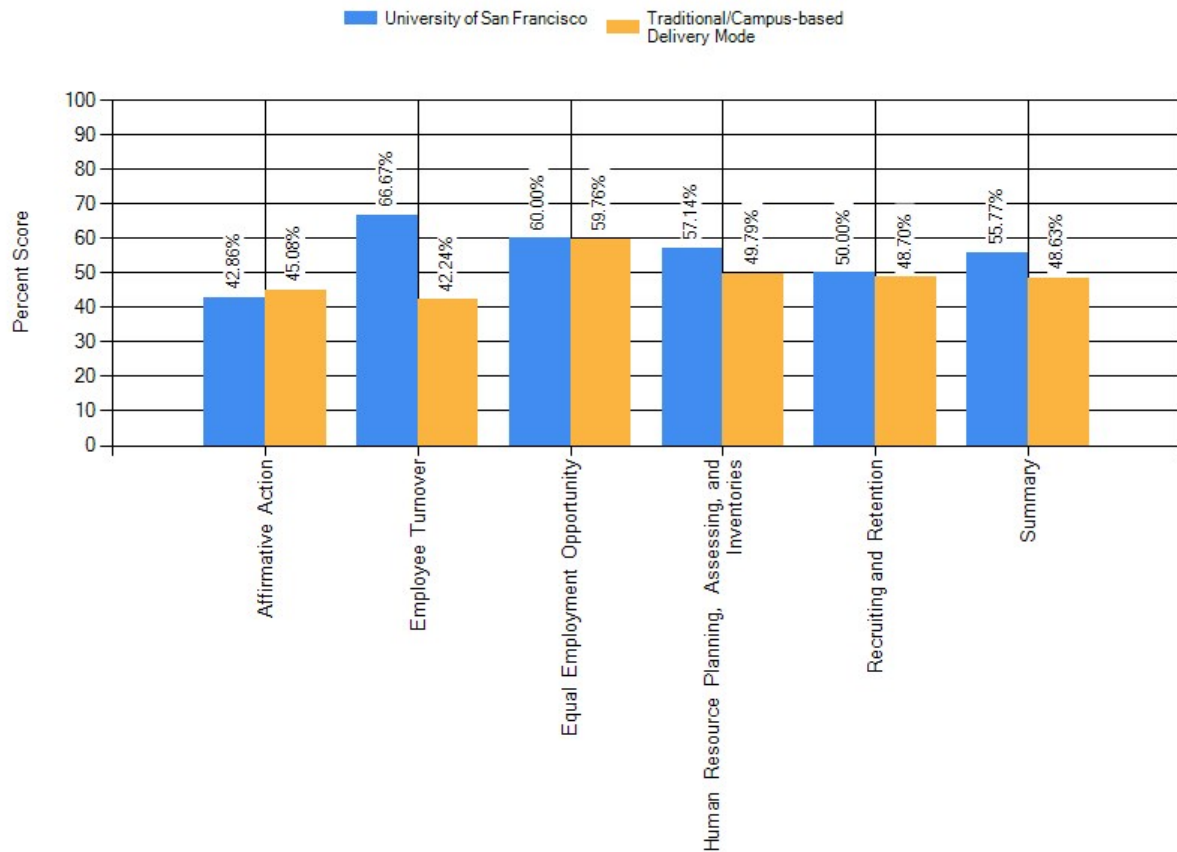
Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 1.9

Management: Human Resource Management Assessment Summary

Assessment Summary Statistics

Management: Human Resource Management	Inbound
Sample Size	16
Mean Score	55.77%
Standard Deviation	23.94
Min Score	0%
Max Score	100%
Median Score	67%
Mode	67%

Inbound Exam Management: Human Resource Management Result

Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 1.90

Mean Score: 55.77%, Max Score: 100.00%, Min Score: 0.00%

Standard Deviation: 23.94

* Results are sorted by number of minutes taken to complete the topic.

## Management: Human Resource Management Subject Score Comparison *Inbound Exam*

Frequency of Questions Offered on *Inbound* Exams

Management: Human Resource Management	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Affirmative Action	7	42.86%	823	45.08%	*43	32.26%	43.48%	51.52%	60.88%
Employee Turnover	9	66.67%	1192	42.24%	*97	33.86%	40.00%	44.25%	52.80%
Equal Employment Opportunity	5	60.00%	758	59.76%	*51	55.22%	57.54%	66.67%	71.70%
Human Resource Planning, Assessing, and Inventories	21	57.14%	2702	49.79%	*75	41.23%	48.78%	53.65%	63.38%
Recruiting and Retention	10	50.00%	3179	48.70%	*53	42.64%	48.78%	52.50%	58.97%
Summary	52	55.77%	8654	48.63%	72	41.25%	47.73%	53.08%	58.58%

Frequency correct values in this table are rounded for easier display. To see the raw value 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.

Management: Operations/Production Management Score Comparison
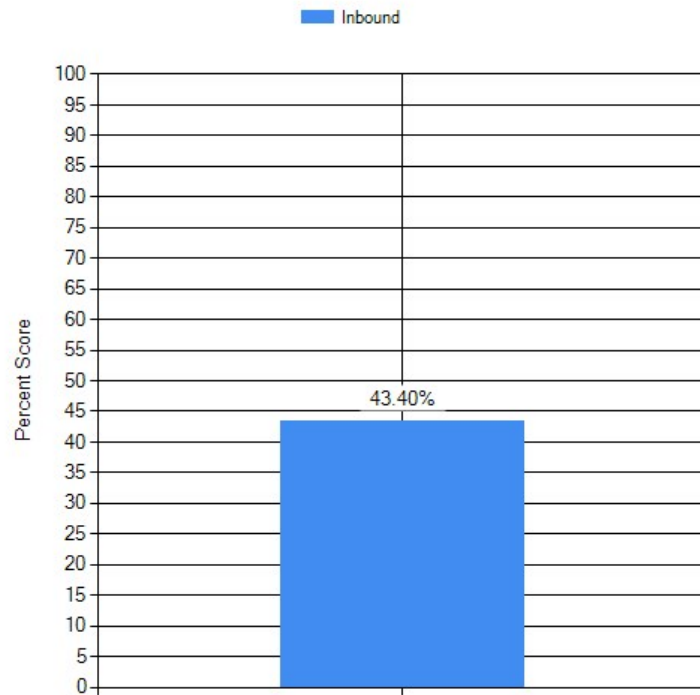
-100.00% Percentage change from Inbound to Outbound
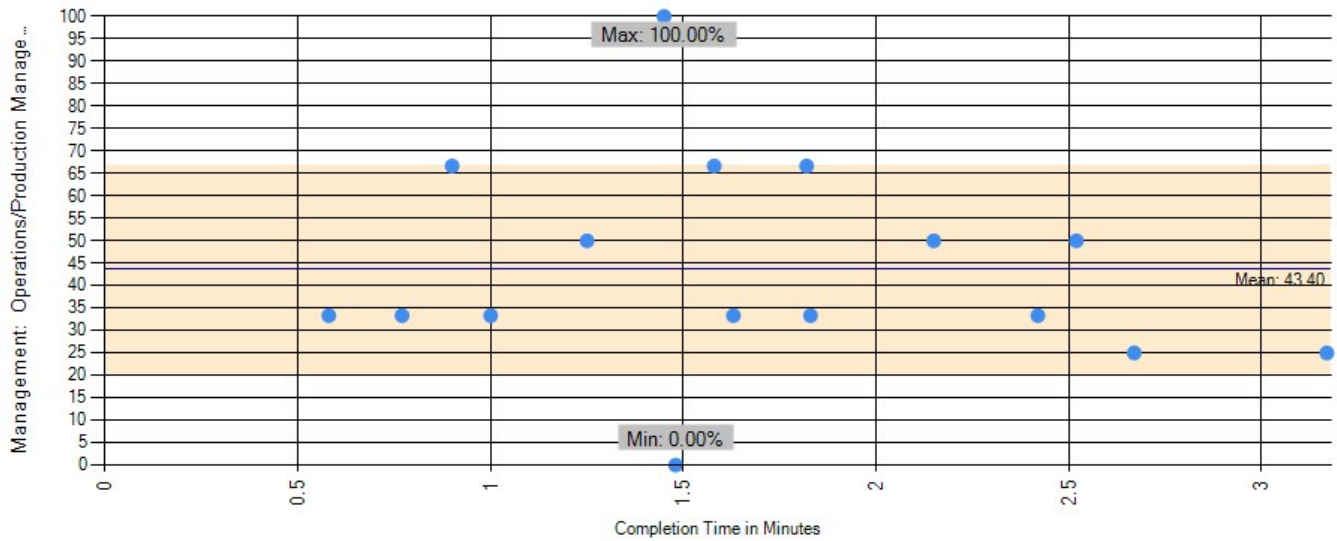
Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 1.7

Management: Operations/Production Management Assessment Summary

Assessment Summary Statistics

Management: Operations/Production Management	Inbound
Sample Size	16
Mean Score	43.40%
Standard Deviation	23.27
Min Score	0%
Max Score	100%
Median Score	33%
Mode	33%

Inbound Exam Management: Operations/Production Management Result
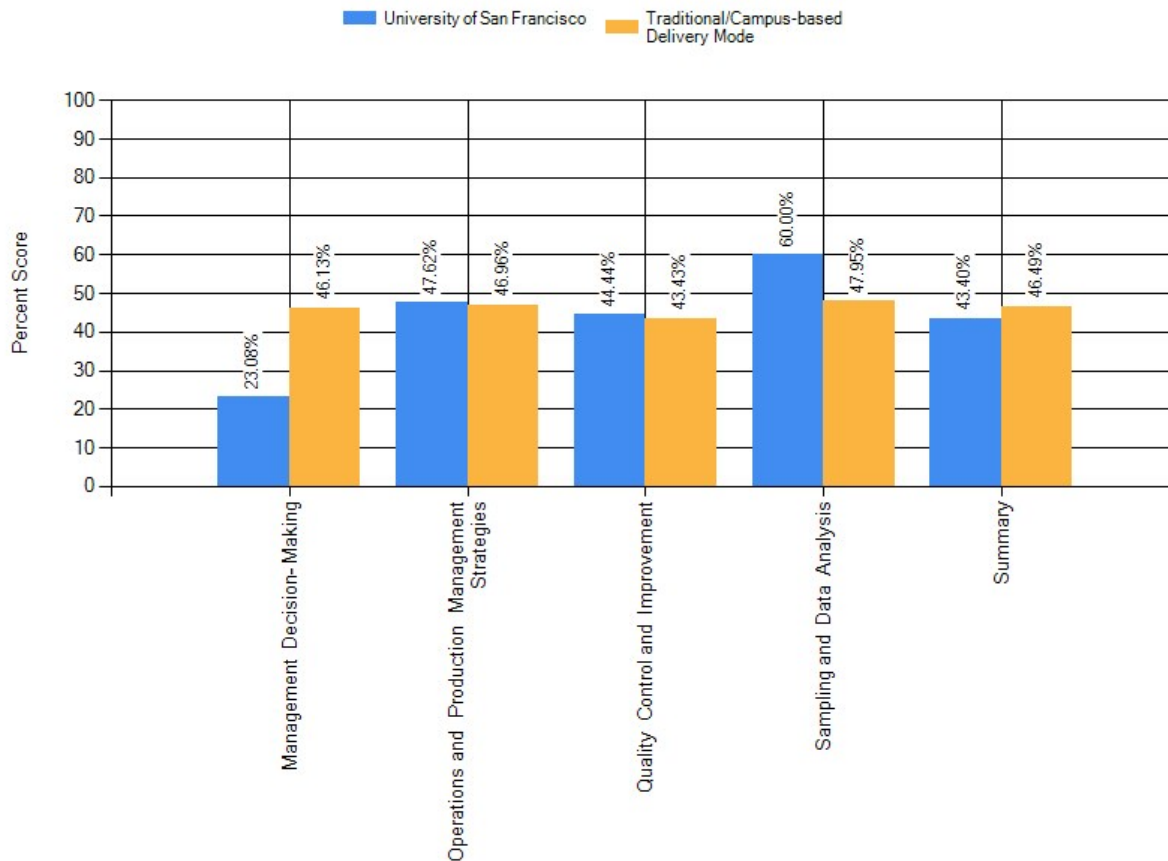

Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 1.70

Mean Score: 43.40%, Max Score: 100.00%, Min Score: 0.00%

Standard Deviation: 23.27

* Results are sorted by number of minutes taken to complete the topic.

# Management: Operations/Production Management Subject Score Comparison *Inbound Exam*

Legend: University of San Francisco (blue), Traditional/Campus-based Delivery Mode (orange)

Category	USF	Traditional
Management Decision-Making	23.08%	46.13%
Operations and Production Management Strategies	47.62%	46.96%
Quality Control and Improvement	44.44%	43.43%
Sampling and Data Analysis	60.00%	47.95%
Summary	43.40%	46.49%

Frequency of Questions Offered on *Inbound* Exams

Management: Operations/Production Management	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Management Decision-Making	13	23.08%	2145	46.13%	*2	36.99%	43.44%	51.53%	62.78%
Operations and Production Management Strategies	21	47.62%	4100	46.96%	*60	40.00%	44.44%	49.29%	57.62%
Quality Control and Improvement	9	44.44%	993	43.43%	*62	35.29%	38.23%	47.36%	57.84%
Sampling and Data Analysis	10	60.00%	2134	47.95%	*84	39.36%	44.44%	53.22%	60.62%
Summary	**53**	**43.4%**	**9372**	**46.49%**	**40**	**38.91%**	**44.42%**	**49.37%**	**57.97%**

Frequency correct values in this table are rounded for easier display. To see the raw value 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.

Management: Organizational Behavior Score Comparison
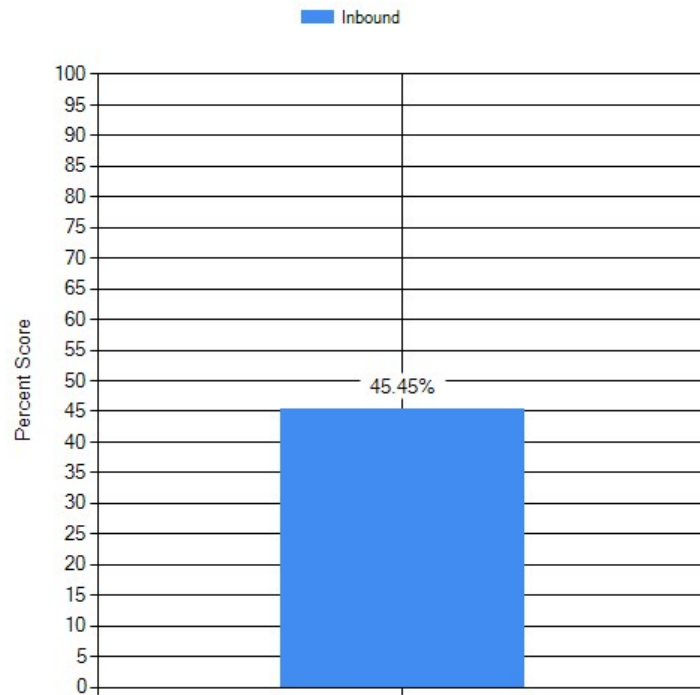
Inbound

-100.00% Percentage change from Inbound to Outbound
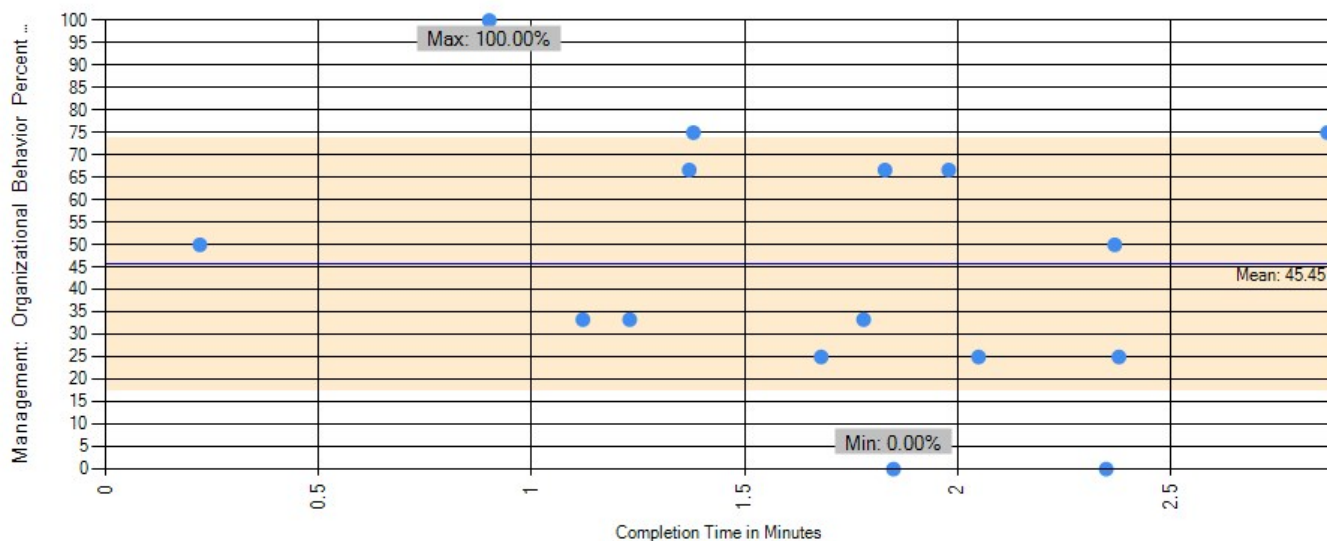
Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 1.7

Management: Organizational Behavior Assessment Summary

Assessment Summary Statistics

Management: Organizational Behavior	Inbound
Sample Size	16
Mean Score	45.45%
Standard Deviation	28.21
Min Score	0%
Max Score	100%
Median Score	42%
Mode	67%

Inbound Exam Management: Organizational Behavior Result

Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 1.72

Mean Score: 45.45%, Max Score: 100.00%, Min Score: 0.00%

Standard Deviation: 28.21

* Results are sorted by number of minutes taken to complete the topic.

## Management: Organizational Behavior Subject Score Comparison *Inbound Exam*
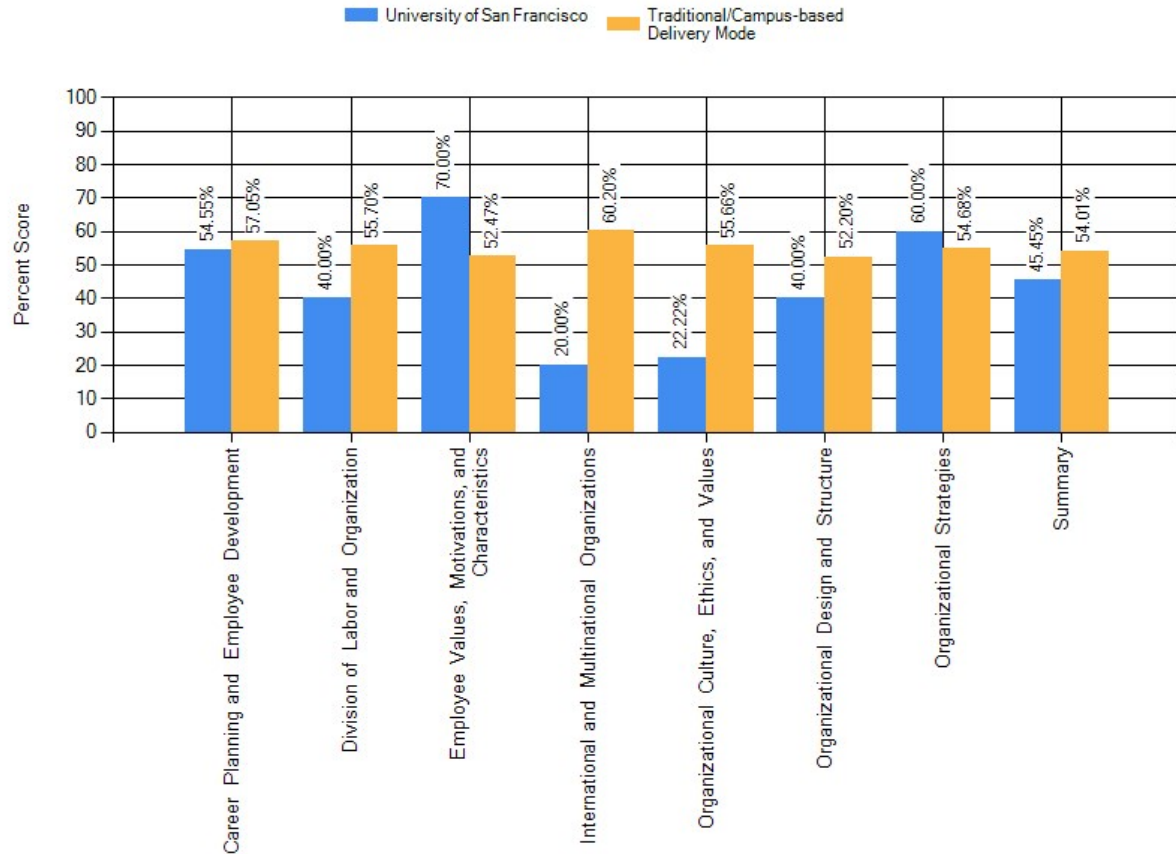
Frequency of Questions Offered on *Inbound* Exams

Management: Organizational Behavior	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Career Planning and Employee Development	11	54.55%	1747	57.05%	*43	50.00%	54.89%	60.25%	66.67%
Division of Labor and Organization	5	40.00%	316	55.70%	*2	52.35%	54.64%	56.25%	63.87%
Employee Values, Motivations, and Characteristics	10	70.00%	1433	52.47%	*92	41.71%	50.74%	58.01%	64.31%
International and Multinational Organizations	5	20.00%	358	60.20%	*1	55.36%	58.06%	61.82%	68.38%
Organizational Culture, Ethics, and Values	9	22.22%	726	55.66%	*1	47.42%	50.68%	60.43%	69.25%
Organizational Design and Structure	10	40.00%	2455	52.20%	*16	45.71%	51.16%	55.56%	61.54%
Organizational Strategies	5	60.00%	1176	54.68%	*73	48.86%	53.91%	58.31%	63.65%
Summary	**55**	**45.45%**	**8211**	**54.01%**	**12**	**47.51%**	**51.24%**	**56.43%**	**64.68%**

Frequency correct values in this table are rounded for easier display. To see the raw value 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.
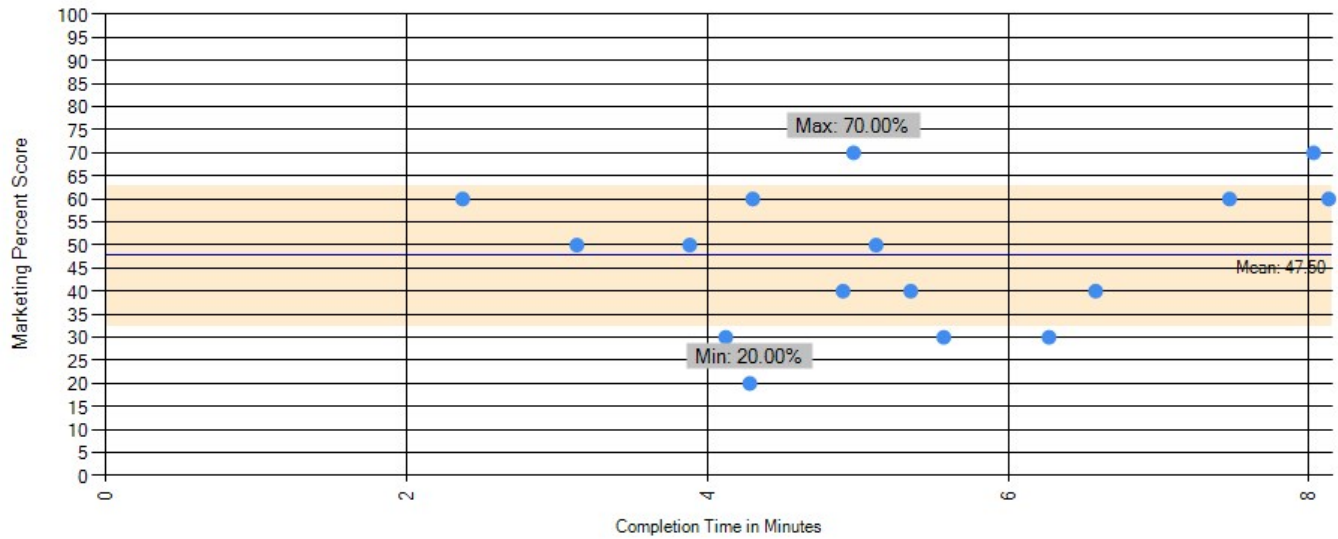
Marketing Score Comparison
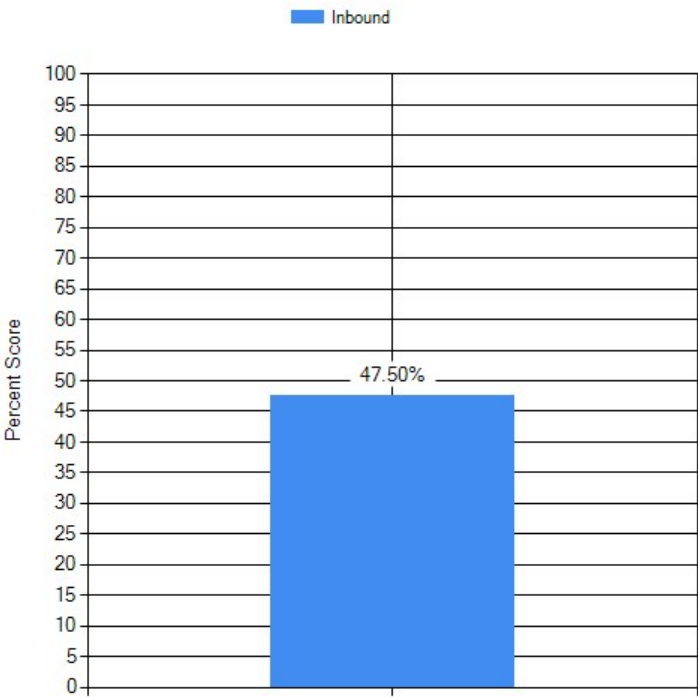
-100.00% Percentage change from Inbound to Outbound

Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 5.3

Marketing Assessment Summary

Assessment Summary Statistics

Marketing	Inbound
Sample Size	16
Mean Score	47.50%
Standard Deviation	15.28
Min Score	20%
Max Score	70%
Median Score	50%
Mode	60%

Inbound Exam Marketing Result

Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 5.28

Mean Score: 47.50%, Max Score: 70.00%, Min Score: 20.00%

Standard Deviation: 15.28

* Results are sorted by number of minutes taken to complete the topic.

<mark>Marketing</mark> Subject Score Comparison *Inbound Exam*
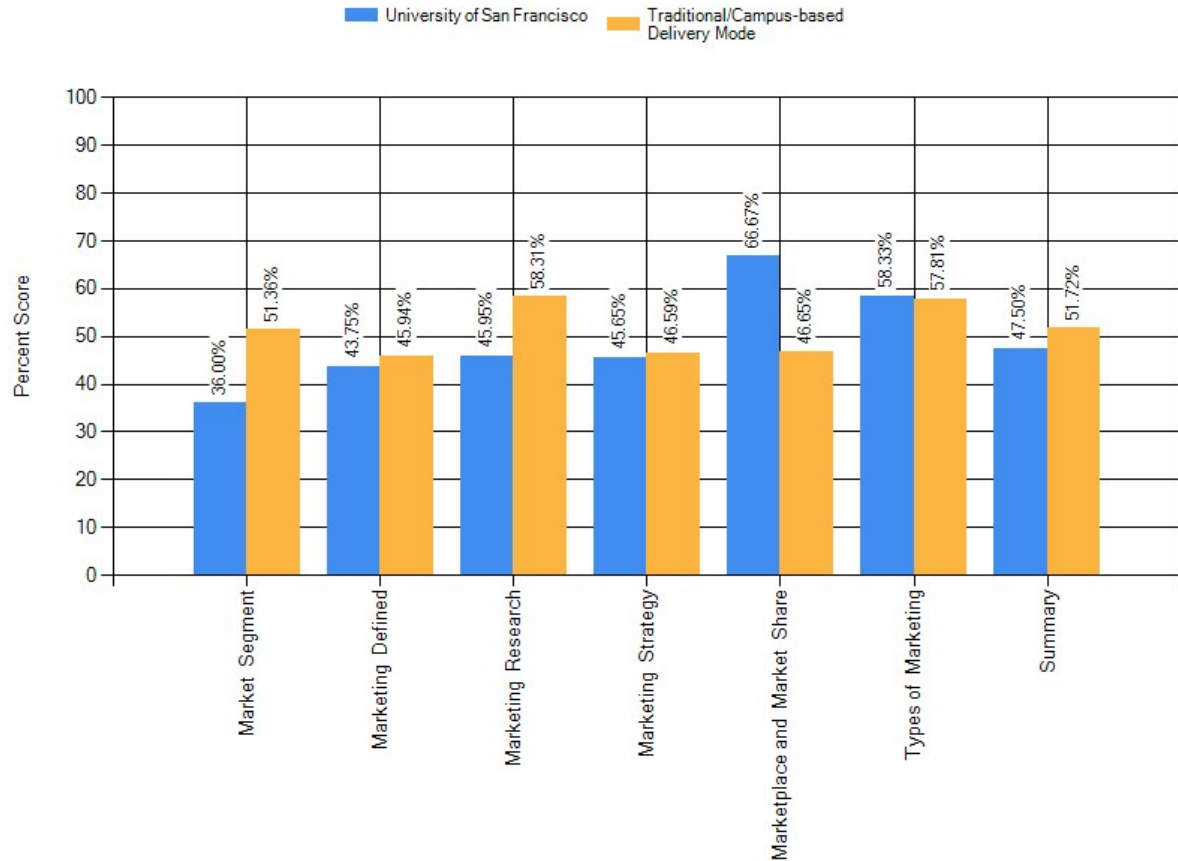
Frequency of Questions Offered on *Inbound* Exams

Marketing	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Market Segment	25	36.00%	5014	51.36%	*4	44.44%	48.20%	53.40%	62.40%
Marketing Defined	16	43.75%	3523	45.94%	*44	38.57%	44.04%	51.42%	58.74%
Marketing Research	37	45.95%	8172	58.31%	*6	52.73%	56.93%	61.56%	67.53%
Marketing Strategy	46	45.65%	6256	46.59%	*49	40.69%	44.36%	47.89%	55.89%
Marketplace and Market Share	12	66.67%	3135	46.65%	*97	39.30%	44.69%	47.82%	54.70%
Types of Marketing	24	58.33%	2996	57.81%	*55	47.68%	54.55%	62.22%	69.43%
Summary	**160**	**47.5%**	**29096**	**51.72%**	**24**	**47.58%**	**49.67%**	**52.29%**	**60.92%**

Frequency correct values in this table are rounded for easier display. To see the raw value 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.

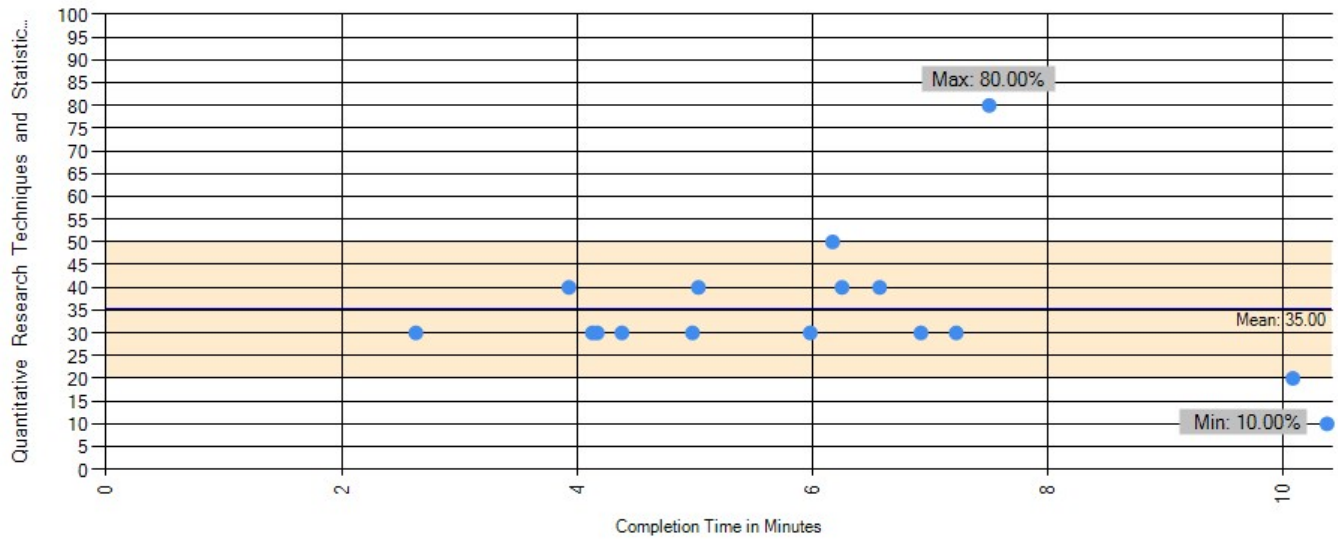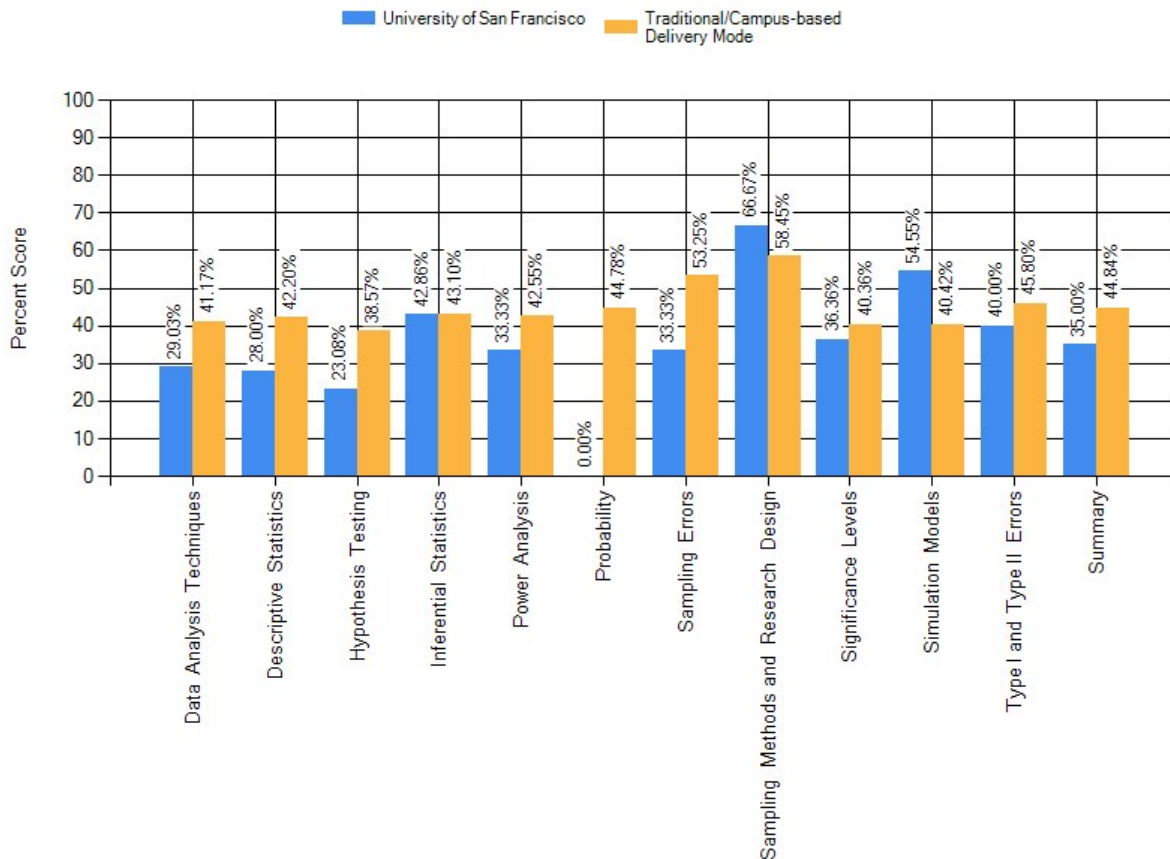# Quantitative Research Techniques and Statistics Score Comparison
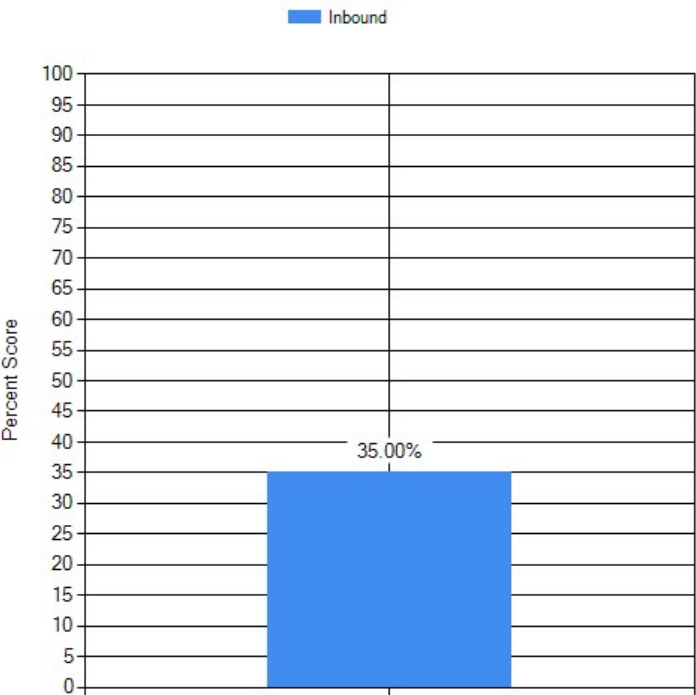
-100.00% Percentage change from Inbound to Outbound

Sample Size: Inbound = 16

Mean Completion Time (mins): Inbound = 6

Quantitative Research Techniques and Statistics Assessment Summary

Assessment Summary Statistics

Quantitative Research Techniques and Statistics	Inbound
Sample Size	16
Mean Score	35.00%
Standard Deviation	15.06
Min Score	10%
Max Score	80%
Median Score	30%
Mode	30%

Inbound Exam Quantitative Research Techniques and Statistics Result

Sample Size: 16

Mean Completion Time for this Topic (mins): Inbound = 6.02

Mean Score: 35.00%, Max Score: 80.00%, Min Score: 10.00%

Standard Deviation: 15.06

* Results are sorted by number of minutes taken to complete the topic.

Quantitative Research Techniques and Statistics Subject Score Comparison *Inbound Exam*

Frequency of Questions Offered on *Inbound* Exams

Quantitative Research Techniques and Statistics	Results for This Report's Dataset		Averages for the Selected Aggregate Pool		Percentile Rank for This Report's Dataset	Required Scores for Identified Percentiles Based on the Selected Aggregate Pool			
	Num Questions Offered	Frequency Correct	Num Questions Offered	Frequency Correct		25th	45th	65th	85th
Data Analysis Techniques	31	29.03%	3872	41.17%	*13	31.70%	37.45%	41.69%	55.57%
Descriptive Statistics	25	28.00%	2982	42.20%	*8	34.88%	39.58%	44.74%	54.35%
Hypothesis Testing	13	23.08%	1865	38.57%	*6	30.00%	36.46%	43.42%	50.62%
Inferential Statistics	7	42.86%	1984	43.10%	*49	32.50%	41.46%	47.94%	54.98%
Power Analysis	12	33.33%	1425	42.55%	*25	32.61%	39.11%	44.65%	55.56%
Probability	5	0.00%	1549	44.78%	*1	34.23%	40.67%	47.22%	61.25%
Sampling Errors	12	33.33%	2100	53.25%	*1	44.92%	50.96%	56.26%	64.56%
Sampling Methods and Research Design	12	66.67%	2499	58.45%	*81	51.10%	56.10%	61.98%	68.55%
Significance Levels	22	36.36%	2070	40.36%	*43	34.11%	36.84%	41.01%	51.91%
Simulation Models	11	54.55%	1687	40.42%	*92	36.91%	39.55%	42.09%	48.69%
Type I and Type II Errors	10	40.00%	2013	45.80%	*40	36.01%	41.77%	46.05%	61.05%
Summary	**160**	**35%**	**24046**	**44.84%**	**6**	**37.81%**	**40.67%**	**45.31%**	**56.61%**

Frequency correct values in this table are rounded for easier display. To see the raw value 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.
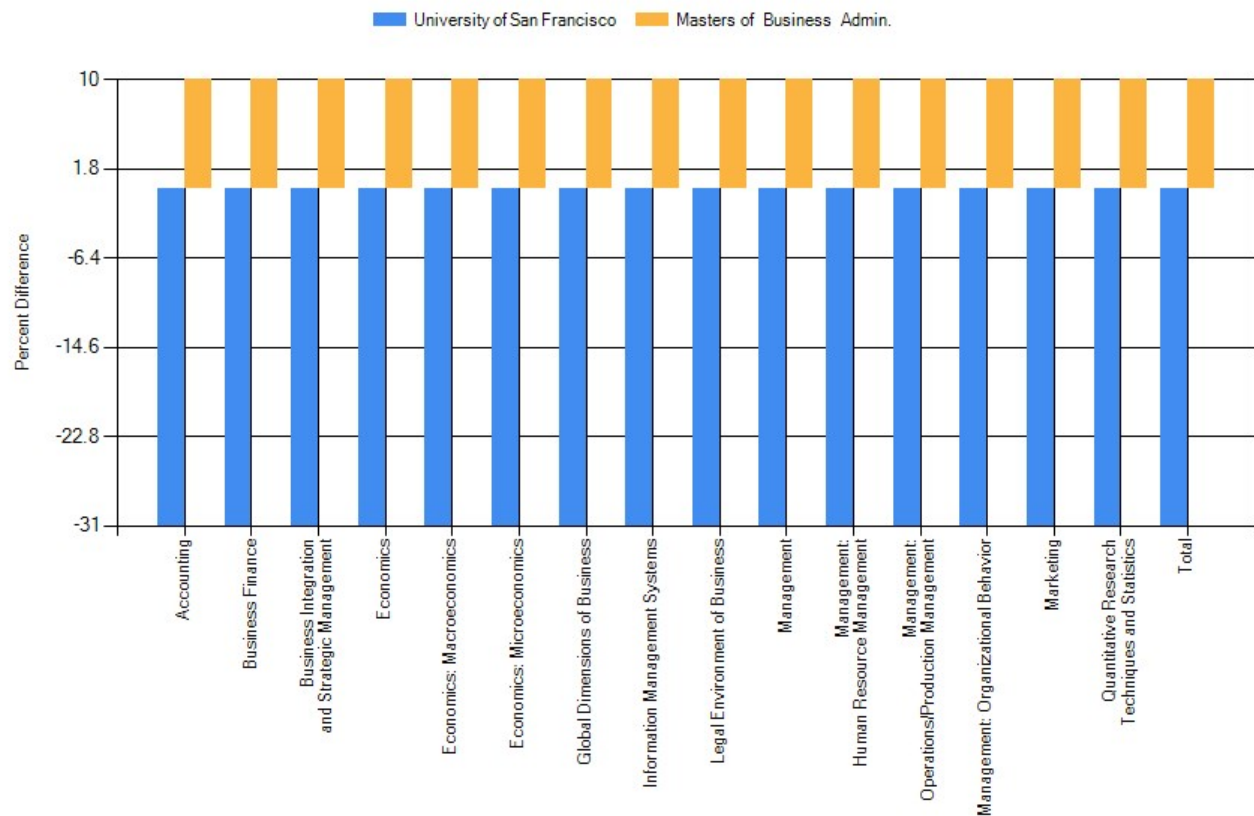
Overview: Outbound Exam Results Compared to the Aggregate Pool for Masters of Business Admin. Programs

No outbound exams to compare.

Overview: Outbound Exam Results Compared to the Aggregate Pool for Located Inside the US Programs

No outbound exams to compare.

Overview: Outbound Exam Results Compared to the Aggregate Pool for Located Inside the US Programs

No outbound exams to compare.

Overview: Percent Change in Inbound/Outbound Exam Results Compared to the Aggregate Pool for Masters of Business Admin. Programs

Overview: Percent Change in Inbound/Outbound Exam Results Compared to the Aggregate Pool for Located Inside the US Programs
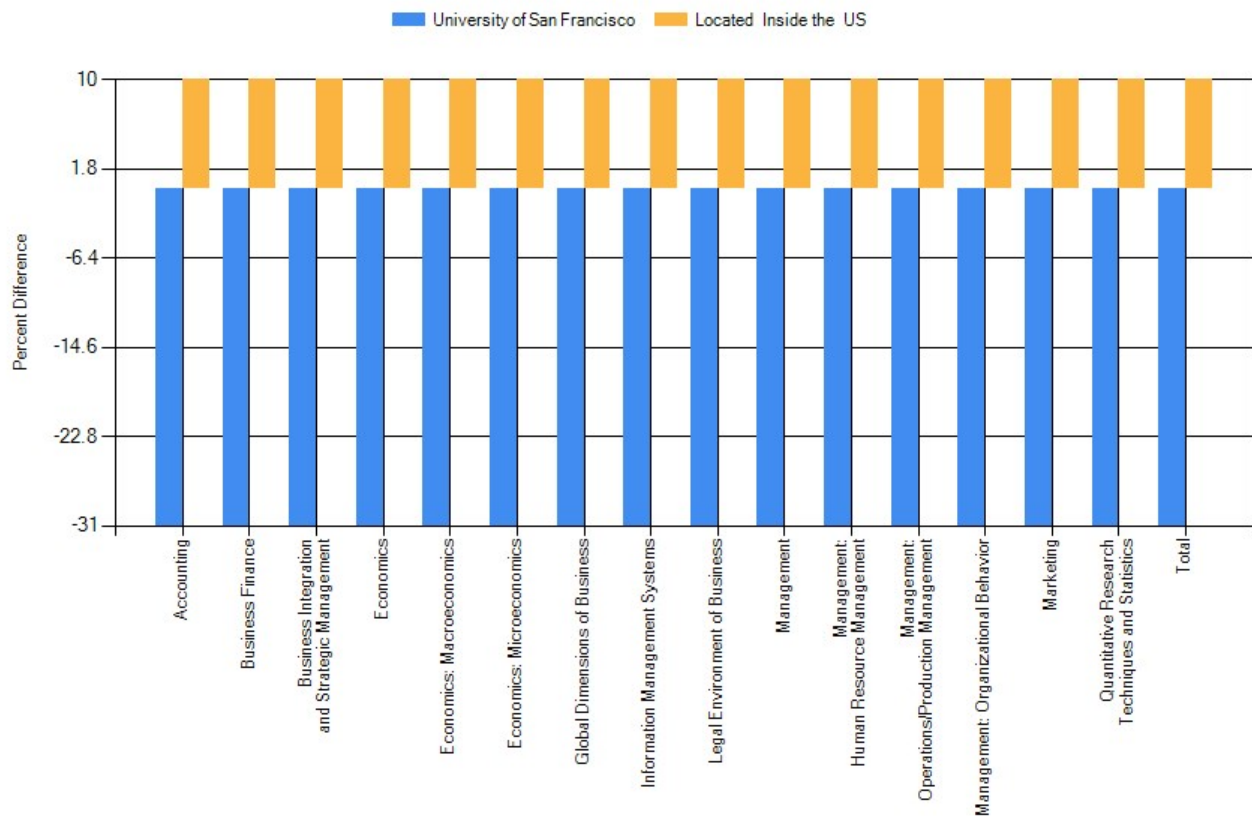
Comparison of Outbound Exam Results with Outbound Exam Aggregate Results: Accounting
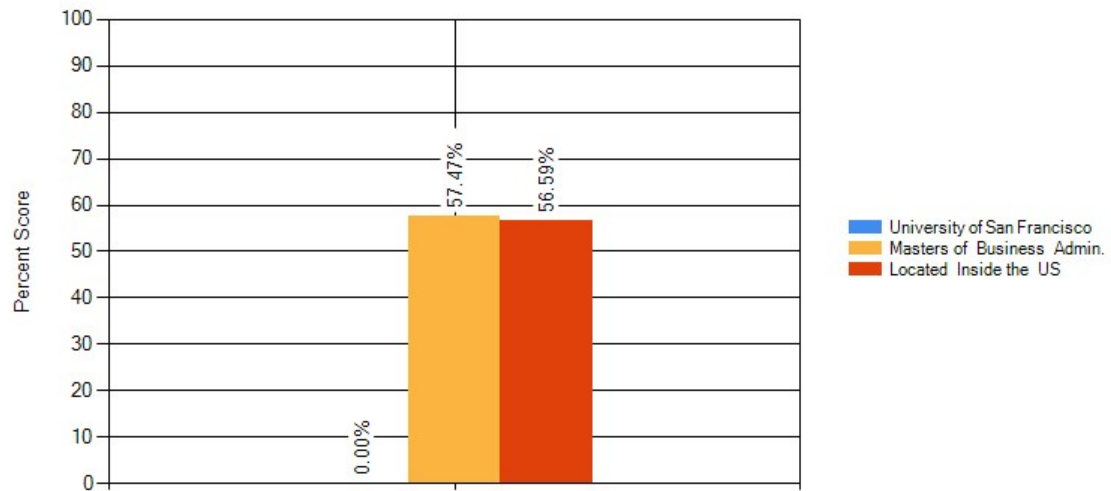
-57.47% Difference with the Masters of Business Admin. Aggregate

-56.59% Difference with the Located Inside the US Aggregate

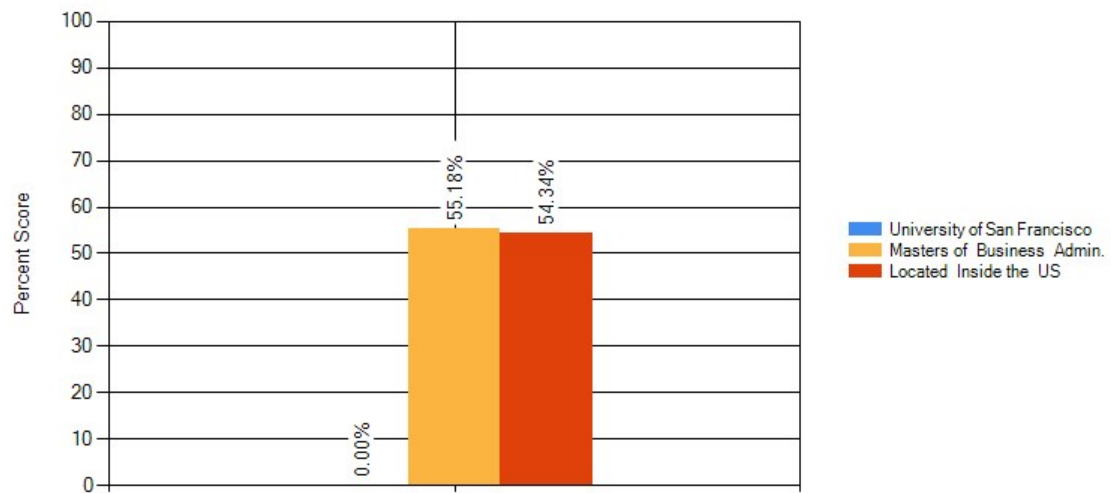# Comparison of Outbound Exam Results with Outbound Exam Aggregate Results: Business Finance
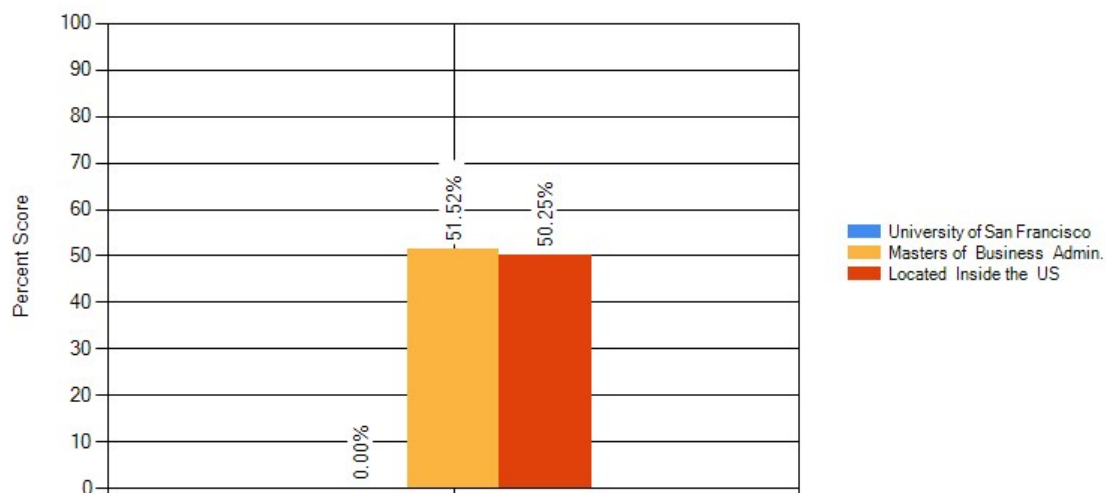
-51.52% Difference with the Masters of Business Admin. Aggregate
-50.25% Difference with the Located Inside the US Aggregate

Comparison of Outbound Exam Results with Outbound Exam Aggregate Results: Business Integration and Strategic Management
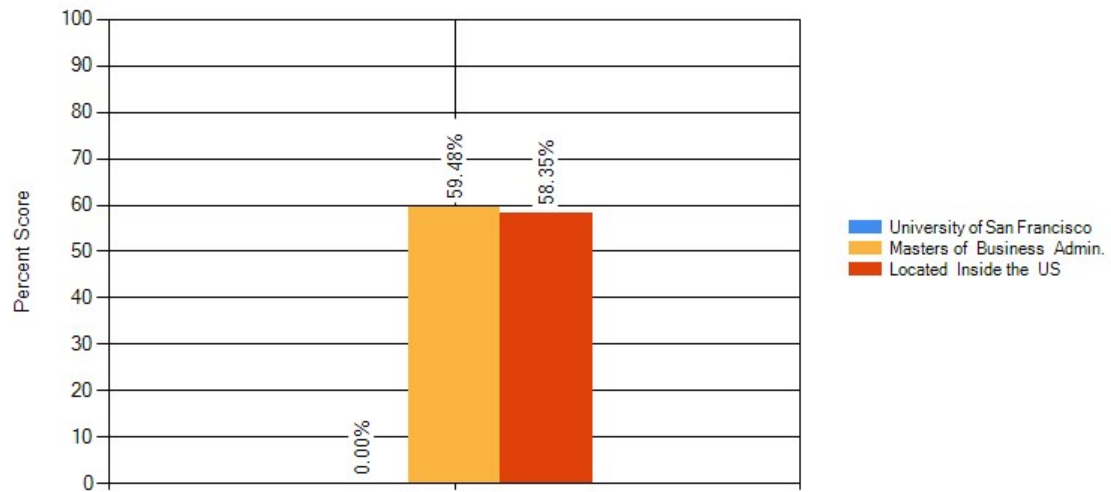
-59.48% Difference with the Masters of Business Admin. Aggregate
-58.35% Difference with the Located Inside the US Aggregate
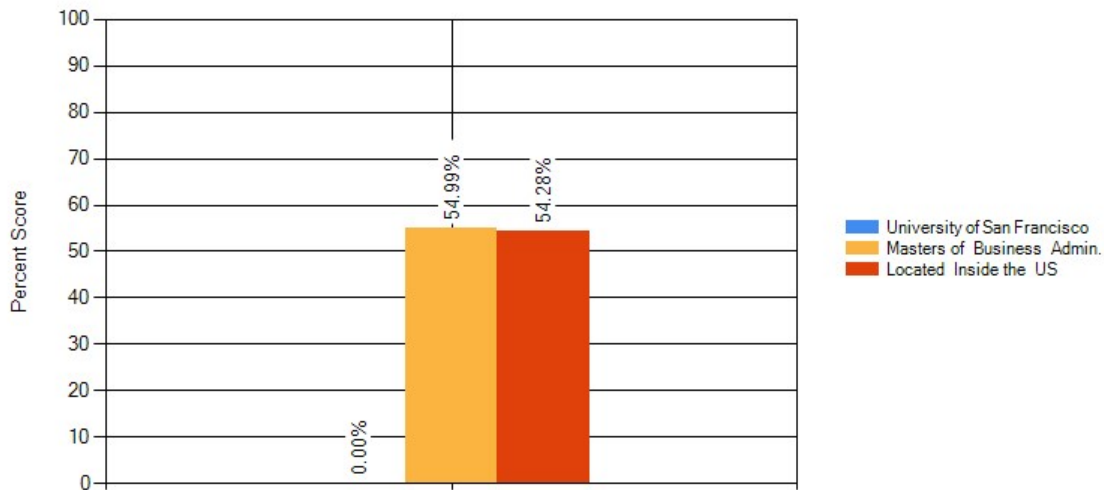
Comparison of Outbound Exam Results with Outbound Exam Aggregate Results: Economics

-55.18% Difference with the Masters of Business Admin. Aggregate
-54.34% Difference with the Located Inside the US Aggregate

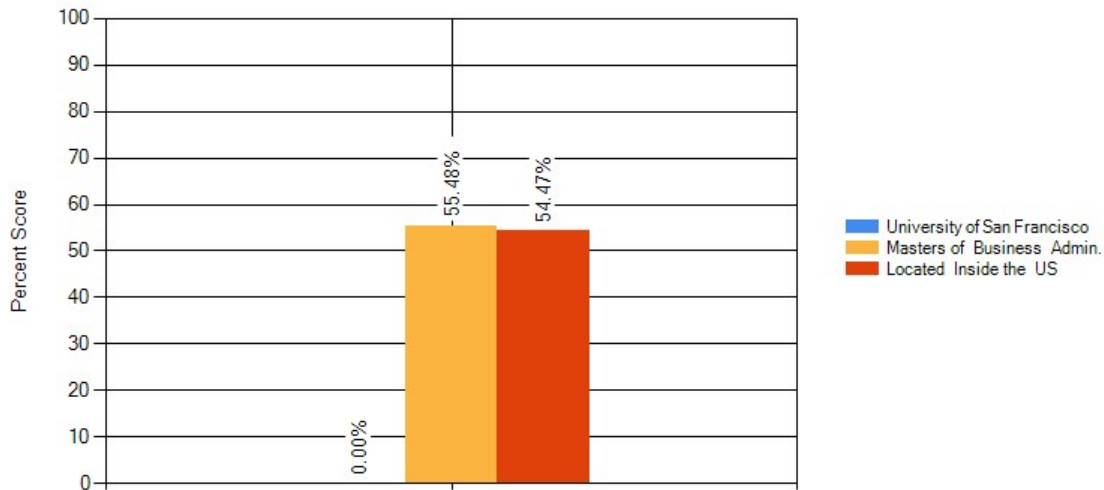# Comparison of Outbound Exam Results with Outbound Exam Aggregate Results: Economics: Macroeconomics

-54.99% Difference with the Masters of Business Admin. Aggregate
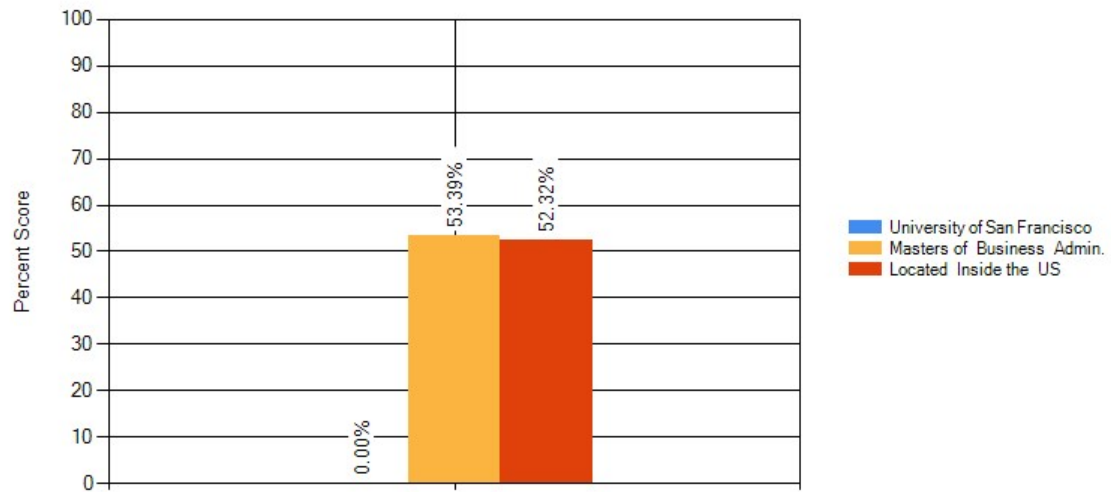
-54.28% Difference with the Located Inside the US Aggregate

Comparison of Outbound Exam Results with Outbound Exam Aggregate Results: Economics: Microeconomics

-55.48% Difference with the Masters of Business Admin. Aggregate

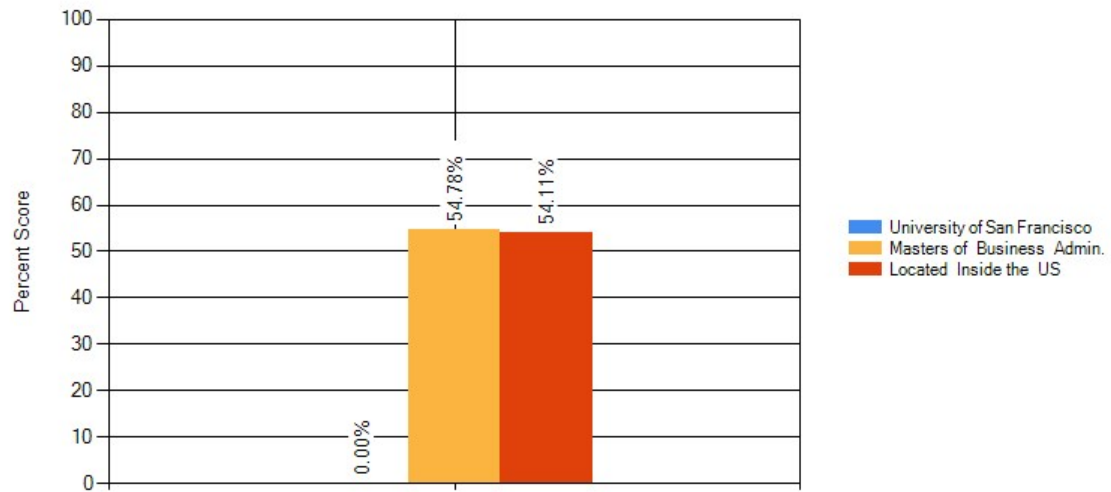-54.47% Difference with the Located Inside the US Aggregate

Comparison of Outbound Exam Results with Outbound Exam Aggregate Results: Global Dimensions of Business

-53.39% Difference with the Masters of Business Admin. Aggregate

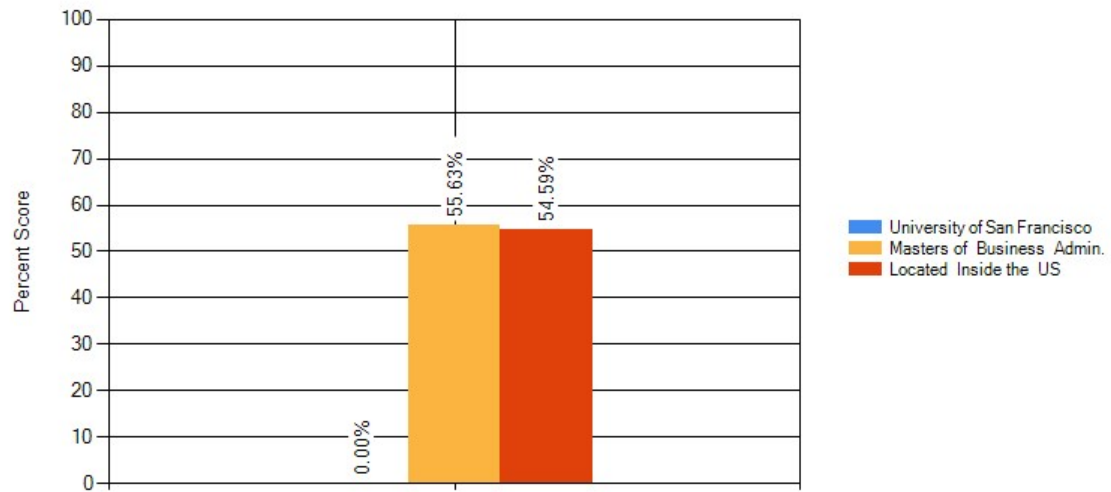-52.32% Difference with the Located Inside the US Aggregate

Comparison of Outbound Exam Results with Outbound Exam Aggregate Results:
Information Management Systems

-54.78% Difference with the Masters of Business Admin. Aggregate

-54.11% Difference with the Located Inside the US Aggregate
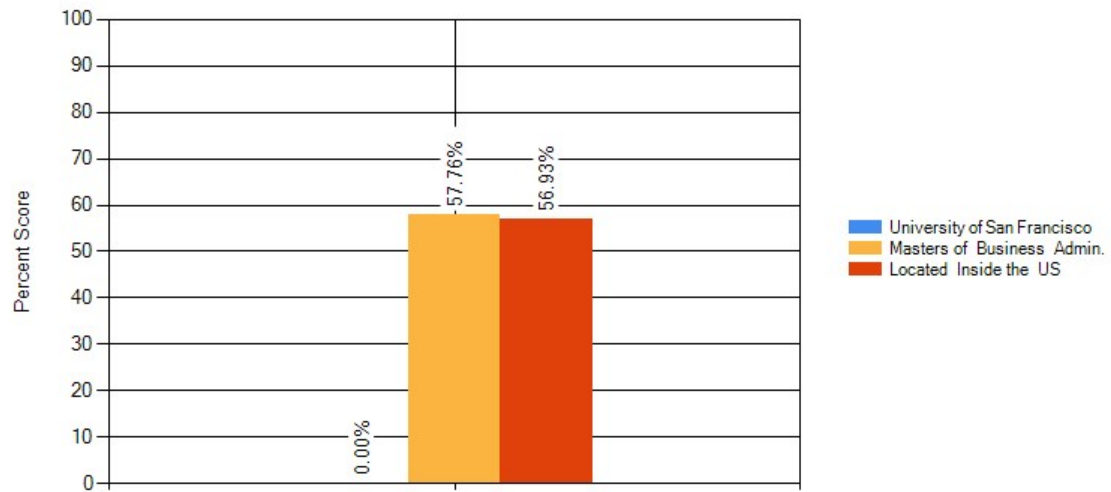
Comparison of Outbound Exam Results with Outbound Exam Aggregate Results: Legal Environment of Business

-55.63% Difference with the Masters of Business Admin. Aggregate

-54.59% Difference with the Located Inside the US Aggregate
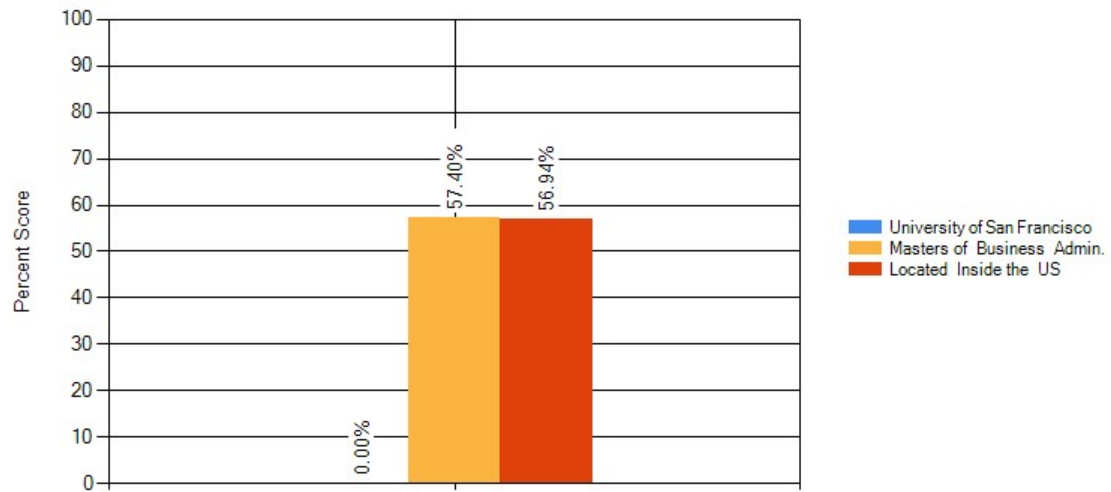
Comparison of Outbound Exam Results with Outbound Exam Aggregate Results:
Management

-57.76% Difference with the Masters of Business Admin. Aggregate
-56.93% Difference with the Located Inside the US Aggregate

Comparison of Outbound Exam Results with Outbound Exam Aggregate Results: Management: Human Resource Management

-57.40% Difference with the Masters of Business Admin. Aggregate

-56.94% Difference with the Located Inside the US Aggregate

Comparison of Outbound Exam Results with Outbound Exam Aggregate Results: Management: Operations/ Production Management

-54.15% Difference with the Masters of Business Admin. Aggregate

-53.01% Difference with the Located Inside the US Aggregate

Comparison of Outbound Exam Results with Outbound Exam Aggregate Results: Management: Organizational Behavior

-60.09% Difference with the Masters of Business Admin. Aggregate

-59.45% Difference with the Located Inside the US Aggregate

Comparison of Outbound Exam Results with Outbound Exam Aggregate Results: Marketing
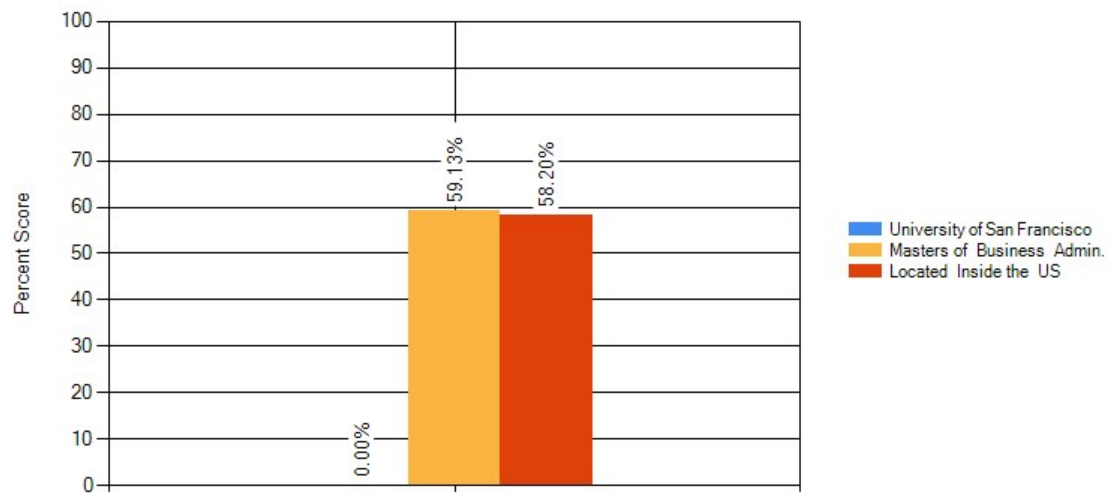
-59.13% Difference with the Masters of Business Admin. Aggregate
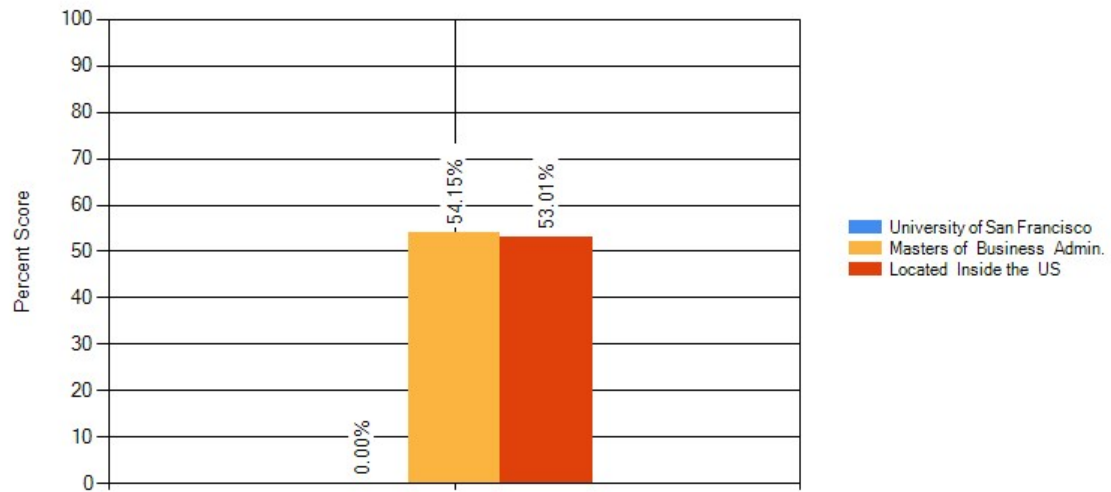-58.20% Difference with the Located Inside the US Aggregate

Comparison of Outbound Exam Results with Outbound Exam Aggregate Results:
Quantitative Research Techniques and Statistics

-52.40% Difference with the Masters of Business Admin. Aggregate

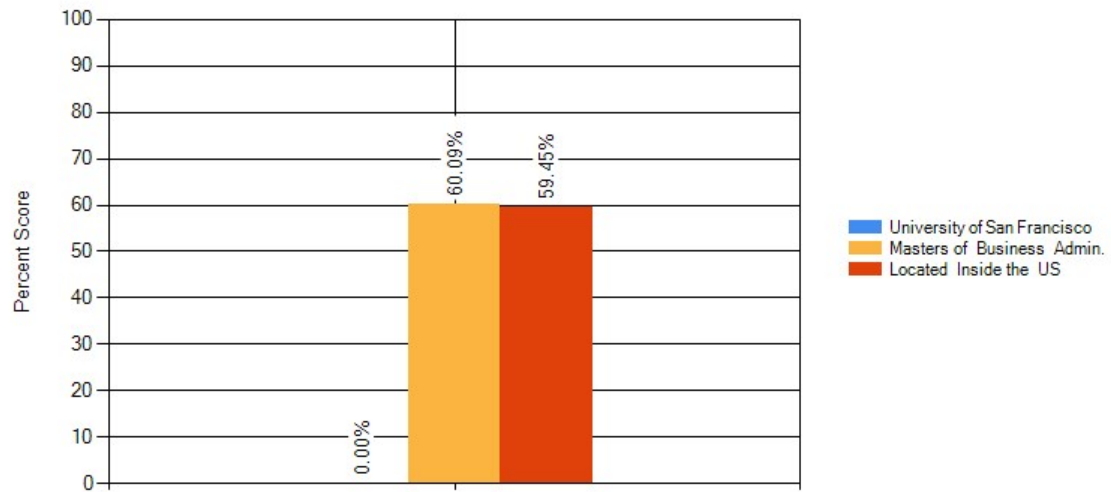-51.80% Difference with the Located Inside the US Aggregate

Comparison of Outbound Exam Results with Outbound Exam Aggregate Results: Total

-56.39% Difference with the Masters of Business Admin. Aggregate
-55.61% Difference with the Located Inside the US Aggregate

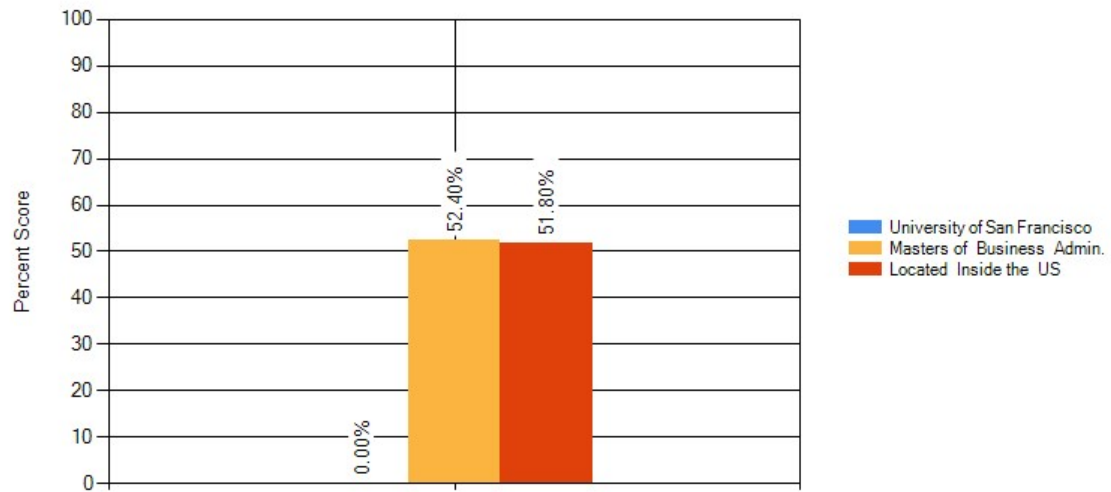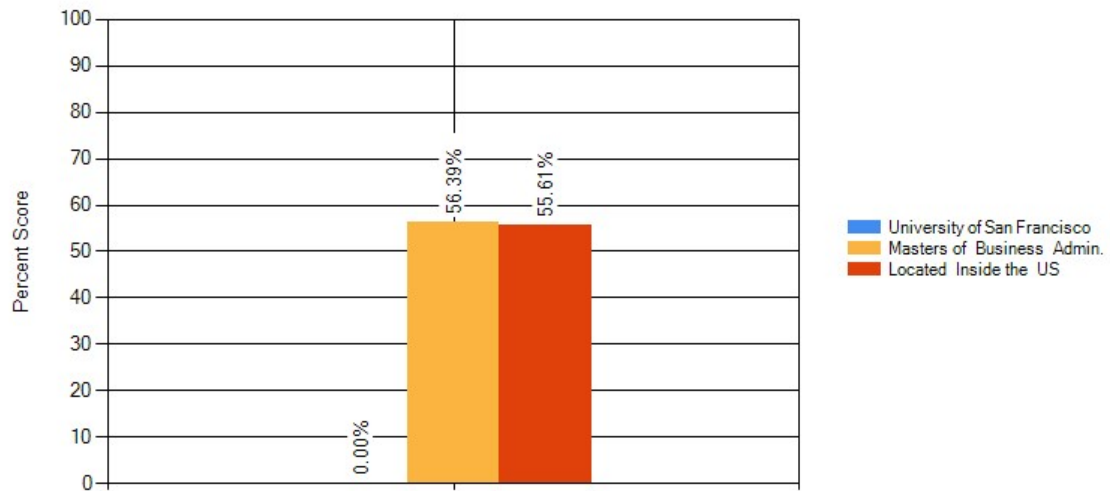# Understanding and Using the Report

The purpose of the following analyses is to assist administrators, academic program managers, assessment coordinators, course managers, and other academic officials with program-level direct assessment of the institutional programs. These data should be used to assess the strengths and opportunities for improvement associated with the academic programs based upon the knowledge levels of the students regarding the foundational learning outcomes of the curriculum.

An Inbound/Outbound exam construct provides data for both internal and external benchmarking. The Inbound Exam evaluates the student's knowledge level towards 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 analysis compared to specific aggregate pools allows for both internal and external benchmarking.

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. Meaning, the sum of the number of questions offered for a set of subjects may not equal the number of questions offered for the topic.

Outbound Exam results are relative. Outbound Exam relevancy is understood best in terms of the change in knowledge level from the time a student enters the program compared to when they graduate from the program.

If identified, cohort level analyses provide program administrators with comparative information based upon the student cohort groups that the school has identified. Side-by-side comparisons are shown to supplement program-level analysis.

External comparisons of outbound scores with the various aggregate pools should only be 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). Multiple pools can be selected for these comparisons.

There are two types of data analyses included within the report: Means of Scores Analysis and Analysis of Percent Correct:

a. **Means of Scores Analysis.** This is a simple mean whereby we take the scores, total, and divide by the number of scores. The sample then is either the schools' number of exams included in the report or the total number of completed exams in the aggregate pools.

b. **Analysis of Percent Correct.** This is a total figure used whereby we take the total number of questions answered correctly (either at the Subject, Sub-topic, or Topic levels) and divided 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.

For percentile ranking calculations and for the 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 based on the results if the sample of Questions Offered for the aggregate pool is less than 300 for a specific subject.

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.

Tips, Techniques, and Suggestions for Applying the Results of this Report for Academic Program-level Analysis and Continuous Improvement

The following tips, techniques, and suggestions for understanding and applying the results presented in this report for academic program-level analysis and continuous improvement are based on our years of experience in working with our client institutions, meeting with academic officials to review the results, and lessons learned from the accreditation institutions.

Reviewing the Results

- Topic and sub-topic level scores tend to be more significant 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 sub-topic 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.
- We have an Aggregate Extraction report available that includes the aggregate pool summary data that is used for comparison analysis purposes. This report is available to you on your Client Administration site under the menu item *Reports*
- 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 program changes. Since report period is a variable, we can go back and include past exam results for future reporting in order to get the sample size high enough for meaningful analysis.

Learning Outcome Analysis

- To evaluate the institution's learning outcomes, consider the table shown for each topic the frequency of questions correct. These data are most useful when considering learning outcome.
- 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 taking in the context of the subject-level analysis. For example, a relatively low topic/sub-topic 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/sub-topic score may be unacceptable if the questions missed on the exam were high for key learning outcomes.

Continuous Improvement

- It is important not to make too many changes in a program at the same time based on one or two exam periods. Instead, it it generally better to make small incremental changes to the program based on these results and then monitor the results to assess the consequences of the change effort.
- Specific ideas for continuous improvement include:
  - Updating course content to include more case study type instruction that combines topics in the same analysis.
  - Including a review of key topics towards the end of the program (e. g. in the CAPSTONE course) that includes an application exercise that requires a review and understanding of all the topics included within the program.

Interpreting and Using the Exam Scores

Inbound Exam results are obtained from incoming students who have not yet completed their advance program of study. Cumulative Inbound Exam results are only used relative to the cumulative outbound results to directly measure academic learning. Individual student results from Inbound Exams (Individual Results Report) can be used to help guide, advise, and place a student within a program of study; however, individual results should generally not be used for academic grading purposes other than perhaps extra credit (or some other incentive) to complete the exam.

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

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

There is a distinct difference between evaluating results versus grading individual exams. Individual student grading of Outbound Exams should be conducted using the table shown below on a relative grading scale (school officials determine the exact letter/point grades). Evaluation of the results for internal and external benchmarking should be conducted based comparisons to aggregate pools and between the Inbound and Outbound Exam results.

NOTE: There is no such level as a "passing" or "acceptable" score based on the results of this nationally 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.

To encourage students to do their best with the Outbound Exams, an incentive is usually needed. Exam incentives include a direct grade, grading for extra credit if the result is above a certain threshold, or credit for a future assignment/activity within a course. Some client schools also use top scores to determine prizes or gifts. Typically, simply grading the exam based on the following relative grading scale is the best approach to properly incentivize the exam.

Another useful way of evaluating scores of outbound exams is to review the mean completion times. Typically, for example, a 100-question exam should take the student about 60-90 minutes to complete. If exam completion times are below 30-45 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. Mean completion times are shown in many of the graphs and tables. Reports can be re-run to screen out exam results where the completion time is below a desired threshold.

The following table shows an approximate relationship between the exam results and relative student performance based upon competency level. **Note: This table should only be used for relative grading purposes of individual student exams. This table should not be used to evaluate exam results for program-level assessment, rather the evaluation of exam results should be based on scores and comparisons of scores with the benchmarks.**

Abandoned exams are not included in the data set for this report.

Exam Score	Relative Interpretation of Student Competency
80-100%	Very High
70-79%	High
60-69%	Above Average
40-59%	Average
30-39%	Below Average
20-29%	Low
0-19%	Very Low

If specific academic credit (grade and points) are to be awarded to students based on their exam results, the table to the left could be used to assign letter grades, extra credit, and/or course points, assuming that the exam is included within a course.

Glossary of Terms

Abandoned Exam. An exam that had the 48 hour time limit elapse. 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.

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

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

Pools Based on Program Delivery Modality

1. **Traditional**. The majority of the program is delivered at a campus location at an established college or university. The majority of the students are recent high school graduates, typically 18-22 years old. Courses are taught on a semester or quarter basis, typically Monday through Friday.
2. **Online**. The majority of the program is delivered online to students and there is little, if any, requirement for the students to go to a campus location any time during their college or university experience. The majority of the students are considered non-traditional, meaning they tend to be older, may have some college credit prior to starting their program, and are often working adults completing their degree program.
3. **Blended**. The program is delivered to students using a combination of online and campus-based instruction and/or the program is delivered in an accelerated format. The course term is typically 4 to 8 weeks. Campus-based instruction tends to be either at night or on weekends with generally longer sessions. The student population tends to be non-traditional, meaning they tend to be older, may have some college credit prior to starting their program, and are often working adults completing their degree program.

Pools Based on Location

1. **Outside-US**. Includes colleges and universities outside of the United States. Program delivery is usually campus-based; however, the aggregate pool includes some blended programs and online programs.
2. **Regional/Country**. Includes colleges and universities outside of the United States from specific regions (e.g. Latin America, Europe, Asia, etc.) or from specific countries (e.g. Mongolia). Program delivery is primarily campus-based; however, the pools may include some blended and online course delivery.
3. **Inside the US**. Includes all US-based schools and programs.

Pools Based on Institute Characteristics

1. **Large Private**. This aggregate pool includes large, privately owned universities within the United States.
2. **HBCU**. Includes colleges and university that are designated as Historically Black Colleges and Universities.
3. **Private**. US schools that are privately owned.
4. **Public**. US schools that are publically owned.
5. **Faith-based**. US schools that have a specific religious affiliation or association.

Masters-level Pools Based on Degree Type

1. **Masters-MBA**. Includes programs that are designed as Masters of Business Administration.
2. **Masters-MS**. Includes programs that are designed as Masters of Science.
3. **Masters-MA**. Includes programs that are designed as Masters of Arts.
4. **Masters-MHA** . Includes all assessments under the Health Care Administration.
5. **Masters-MPA**. Includes all assessments under Public Administration.

Pools Based on Dual-Accreditation Affiliation

1. **IACBE**. Includes business schools and programs affiliated with the International Assembly for Collegiate Business Education. Where available, this pool is further divided by IACBE Region.
2. **ACBSP**. Includes business schools and programs affiliated with the Accreditation Council of Business Schools and Programs. Where available, this pool is further divided by ACBSP Region.
3. **AACSB**. Includes business schools and programs accredited with the Association to Advance Collegiate Schools of Business.

Assessment Period. The date range for the report, which includes all the exams administered 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.

Coefficient of Determination (R2) denoted $R2$ and pronounced R squared, is a statistical measure of how well the regression line approximates the real data points. An $R2$ of 1 indicates that the regression line perfectly fits the data.

Cohort. A group of students based upon a demographic factor such as specialization, campus location, program start date, etc. We provide cohort-level analysis based upon cohort categories identified at the start of the exam cycle.

Exam. Includes all of the topics to be assessed for a specified program. Each topic has 10 questions included within exam, randomly selected from a validated test bank that includes 300-500 exam questions. Inbound and Outbound Exams are generated from the same test bank of questions.

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

Frequency of Questions Correct. For Outbound Exams, the frequency of questions correct is calculated for each subject within a topic. The formula is: (Number of Questions Correct / Number of Questions Offered) * 100. In order 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.

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.

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.

Mean Completion Time. The average time, in minutes, to complete the exam. Mean completion time is also shown for each topic. Mean completion times are helpful when evaluating student effort, particularly with Outbound Exam results. If the Outbound Exams have a relatively low mean completion time, this may be an indication that the students are not putting forth their best effort. Additional incentives may be necessary to encourage better student performance (extra credit, points, letter grades, credit for future assignments, etc.).

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

Percentage Change. The percentage change between two scores. For inbound/outbound testing, the percentage change is calculated using the following formula: *(Outbound Score / Inbound Score) - 1.*

Percentage Difference. The percentage difference between a school's outbound student results and the aggregate, calculated using the following formula: *Aggregate Score – School Score.*

Percentile. Percentiles are shown within the 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.

1. A **percentile** rank is the percentage of scores that fall at or below a given score and is based on the following formula: ((NumValuesLessThanScore + (0.5 * NumValuesEqualScore)) / 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.
2. The **percentile benchmark** values are calculated using the Empirical Distribution Function with Interpolation based upon the Excel Function of PERCENTILE.INC (array,k) with the following formula: $(n-1)p=i+f$ where i is the integer part of $(n-1)p$, f is the fractional part of $(n-1)p$, n is the number of observation, and p is the percentile value divided by 100. The percentile benchmark then is the required score of questions correct to be at a specific percentile value (80th, 85th, 90th, or 95th) and is based on interpolation.

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

Scatter Plot. A visual representation of the exam results for all students. The purpose of the scatter plot is to provide you with a visual reference for the ranges in results.

Subjects. For each topic, questions are grouped using 4-8 subject areas. Subjects generally correspond to the school's learning outcomes associated with each topic. In using these data, consider the Subject is the Learning Outcome without the verb.

Subtopic. For the topics of Economics and Management, there are identified subtopics. For the topic of Economics, the subtopics are Macroeconomics and Microeconomics. For the topic of Management, the subtopics are Operations/Production Management, Human Resource Management, and Organizational Behavior. NOTE: When analyzing and evaluating the sub-topic scores, the cumulative totals of the subtopic scores (percentages) will not equal the topic score. The subtopic scores are based on the number of questions answered correctly for that specific subtopic. For example, getting 2 out 3 questions correct for the subtopic of Human Resource Management is a score of 66.66%, 3 out of 4 correct on Organization Behavior is 75% and 1 out of 3 on Operations/Production Management is 33.33%. The total Management topic score, however, is 2+3+1 = 6 out of 10, or 60%.

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.

<u>Understanding and Using the Report</u>

The formulas used for percentile calculations are shown within the glossary of terms. Two statistical artifacts could appear on your reports where the percentile rank seems "off" when compared to the calculated values for the percentile benchmarks.

1. **Statistical Artifact #1:** Due to the use of different formulas used to calculate the school's percentile rank and the required scores for specific benchmarks, the school's rank is less than or higher than the required score for a percentile benchmark, usually by a factor of 1 percentile value. When calculating the percentile rank, we use the school's score and simply calculate the percent of scores that are at or below that score. When we calculate the percentile benchmark, we use an interpolation function to determine the required score for a specific percentile. Therefore, we use two different formulas for the percentile values: the first concerns the score and how many at/equal to the given score and the second an interpolation to calculate the desired score. Both use the same distribution list of scores, arranged in sequence from low to high. When we developed the distribution tables, we used 5 decimal points. When we calculated the benchmarks, we also calculated to 5 decimal points. We show, however, two decimal points in the table.
2. **Statistical Artifact #2:** Due to sample size limitations and rounding, the school's rank is less than the required score for a higher percentile benchmark. The lower the number of exams in the pool, the more these situations will occur. For example: the school score is 56.52% and the 85th percentile is 56.52. In this case, both calculations are correct; the issue concerns sample size. With only 586 questions offered in the pool, we have a distribution sample of 15 values. When we do the rank calculation (the 81st), it comes out "low" due to the sample size and the values within the distribution. When we do the calculations of the benchmarks (interpolation), the actual 85th benchmark to 5 decimal places is 56.52377, but rounds to 56.52 in the table. The school's score of 56.52 and the full number is 56.52173 (52/92 correct). The school's value is below the benchmark of 56.52% for the 85th Percentile, but due to rounding, it looks like the school's score should be at the 85th percentile.