Gartner for Supply Chain

Top 25 North American Supply Chain Undergraduate University Programs, 2020

Caroline Chumakov, Principal Analyst
Dana Stiffler, VP Analyst

Gartner®

Top 25 North American Supply Chain Undergraduate University Programs, 2020

Published 29 June 2020 - ID G00729916 - 14 min read

By Analysts Caroline Chumakov, Dana Stiffler

Initiatives: Supply Chain Strategy, Leadership and Governance

Evolving supply chain skills requirements merit a continuous evaluation of university partnerships. Supply chain leaders can use these rankings to identify the university programs from which to recruit and hire the right talent and partner with on curriculum to meet future capability needs.

Overview

Key Findings

- The University of Arkansas unseats long-standing leader, Pennsylvania State University, as the top supply chain undergraduate university program. This is, in part, due to their comprehensive curriculum, inclusion of global content and strong performance in industry value.
- A supply chain analytics focus is well-established in a vast majority of supply chain undergraduate programs, with 90% of programs offering courses and even analytics majors and minors.
- Women account for 39% of supply chain undergraduates, but only 24% of full-time supply chain undergraduate faculty and very few advisory board positions.
- Undergraduate populations are more ethnically diverse on average (38% are ethnic minorities) than the supply chain organizations that want to hire them.

Recommendations

Supply chain leaders responsible for talent strategy should:

- Prepare for your evaluation of university program partnerships by first assembling and assessing your talent strategy, geographic hiring focus, diversity and inclusion (D&I) objectives, and career value proposition.
- Build a more influential presence by seriously considering second- and third-tier schools, as well as programs outside the Top 25. You will have far greater influence on the curriculum and access to students in these programs. Yesterday's underdog school could well be in tomorrow's Top 5 (i.e., University of Arkansas and University of South Carolina).

- Increase your company's credibility as an appealing place to work for Gen Z university graduates by emphasizing career pathways and development opportunities, improving flexibility of work, and highlighting the work your organization is doing around D&I and sustainability.

Analysis

Do you have a plan of action to compete for the future leaders of your supply chain organization: Gen Z digital natives? At graduation, roughly three out of four have jobs and three months post graduation, 92% are placed. Top students may have already accepted offers in the fall of their senior year (or earlier). Capturing the attention of the newest wave of supply chain professionals, whether for hire or through internship programs, requires thoughtful consideration of supply chain university partnerships.

> **Gartner's 2020 Top 25 Supply Chain University Ranking highlights North American programs with the best curricula, real-world experience and industry reputations. Supply chain leaders can use this information to select the right portfolio of university partners that will ensure strong entry-level pipelines.**

Because the typical supply chain skills profile is continually shifting toward a more analytical and technology-savvy business partner, periodic reevaluation of university programs and partnerships is a must for supply chain leaders. Gartner has committed to refreshing the rankings every two years to keep pace with these trends.

In 2008, the first year we published this analysis, we profiled roughly a dozen programs. This year, 67 universities in the U.S. and Canada responded to our request for information (RFI), with 59 reporting data for undergraduate supply chain programs. This five-fold increase in participating programs over the past 12 years indicates the increasing need for supply chain professionals. Dozens of universities have changed the name and scope of longstanding logistics or operations research programs while many have added supply chain as a brand new major.

As shown in Table 1, the Top 25 North American Undergraduate Supply Chain University Ranking evaluates programs based on three core areas of performance — program scope, industry value and program size. Program scope covers the breadth of the curriculum, industry value includes average starting salary, internship participation and industry reputation, and program size looks at the number of full-time faculty and full- and part-time undergraduate student enrollment.

Table 1: Three Categories of Performance for Supply Chain Undergraduate University Programs in North America

1. Program Scope	2. Industry Value	3. Program Size
■ Curriculum ■ Global problem solving	■ Industry perspective ■ Internship participation ■ Average starting salary ■ Diversity of faculty and student body	■ Enrollment ■ Full-time professors

Source: Gartner

This year's Top 25 Supply Chain Undergraduate and Graduate Program Ranking also features two new additions to the methodology. Given the associated financial and social value of building a diverse organization, we have incorporated a diversity and inclusion score as part of the industry value performance category. This score evaluates the gender and ethnicity breakout of both the student body and faculty of the university program. The program scope now also features a global content score, which evaluates whether a university program requires that students be exposed to global content and problem solving (see the Methodology section for further details).

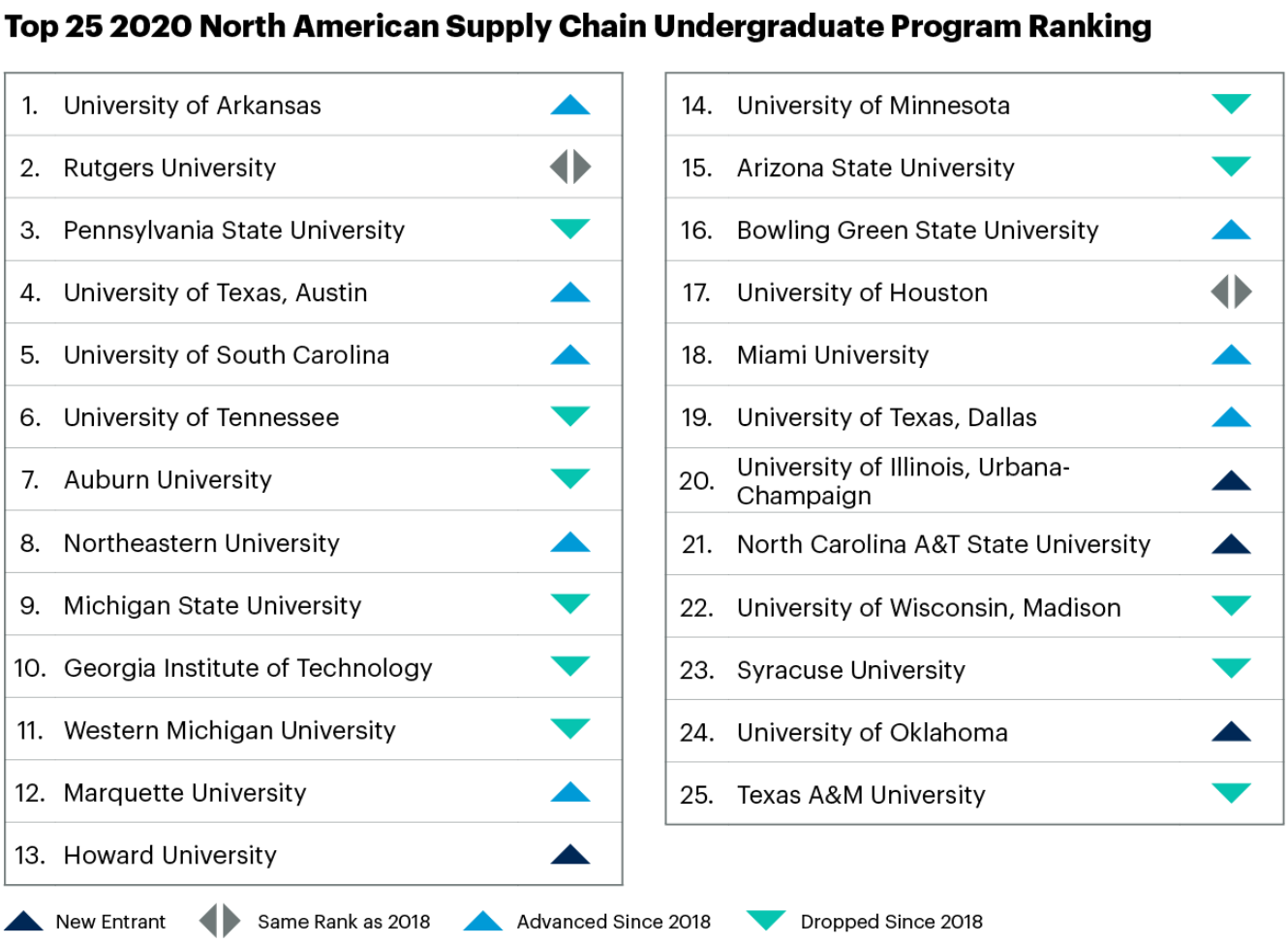
2020 North American Top 25 Undergraduate Program Ranking

Our 2020 North American Top 25 Undergraduate Program Ranking lists familiar names in supply chain higher education — only four are brand new to the list. What is new is relative positioning, with some significant shifts in the supply chain undergraduate ranking order (see Figure 1).

Behind big shifts in positioning since 2018, we saw: (1) major improvement in curricula causing a second- or third-tier program to advance dramatically, and (2) the introduction of our new diversity and inclusion, and global content scores allowed smaller programs to push up the ranks.

We also saw successful efforts by programs (large and small) to promote survey participation among industry practitioners. In 2020, we returned to the practice of a much more broadly circulated industry survey, promoted by the programs themselves (see the Methodology section). This helped many large programs cement leading positions and several upstarts improve theirs significantly.

Figure 1: Top 25 2020 North American Supply Chain Undergraduate Program Ranking



Source: Gartner
729916_C

Data for this research is gathered through surveys of academia and industry. The surveys are designed to identify industry sentiment and recruiting patterns, and to gather information on university program composition, including numbers of students and professors, as well as the scope of the curriculum. Three categories are evaluated, using the research methodology detailed in Figure 5, to determine comparative position. For a detailed explanation, see the Methodology section.

Highlights

- University of Arkansas was the biggest up-and-comer since 2018, moving 14 spots, and was also the university that secured the top position in the undergraduate ranking. Their ascension was due to their comprehensive curriculum, explicit inclusion of global content, great popularity within the industry, robust program size, strong internship and/or co-op participation, and starting salary.
- There was significant movement in the remaining top five slots of the ranking. Upstarts, University of Texas Austin and University of South Carolina, rocketed to No. 4 and No. 5,

respectively. We saw Pennsylvania State University shift to No. 3, so only Rutgers maintained its previous position of No. 2.

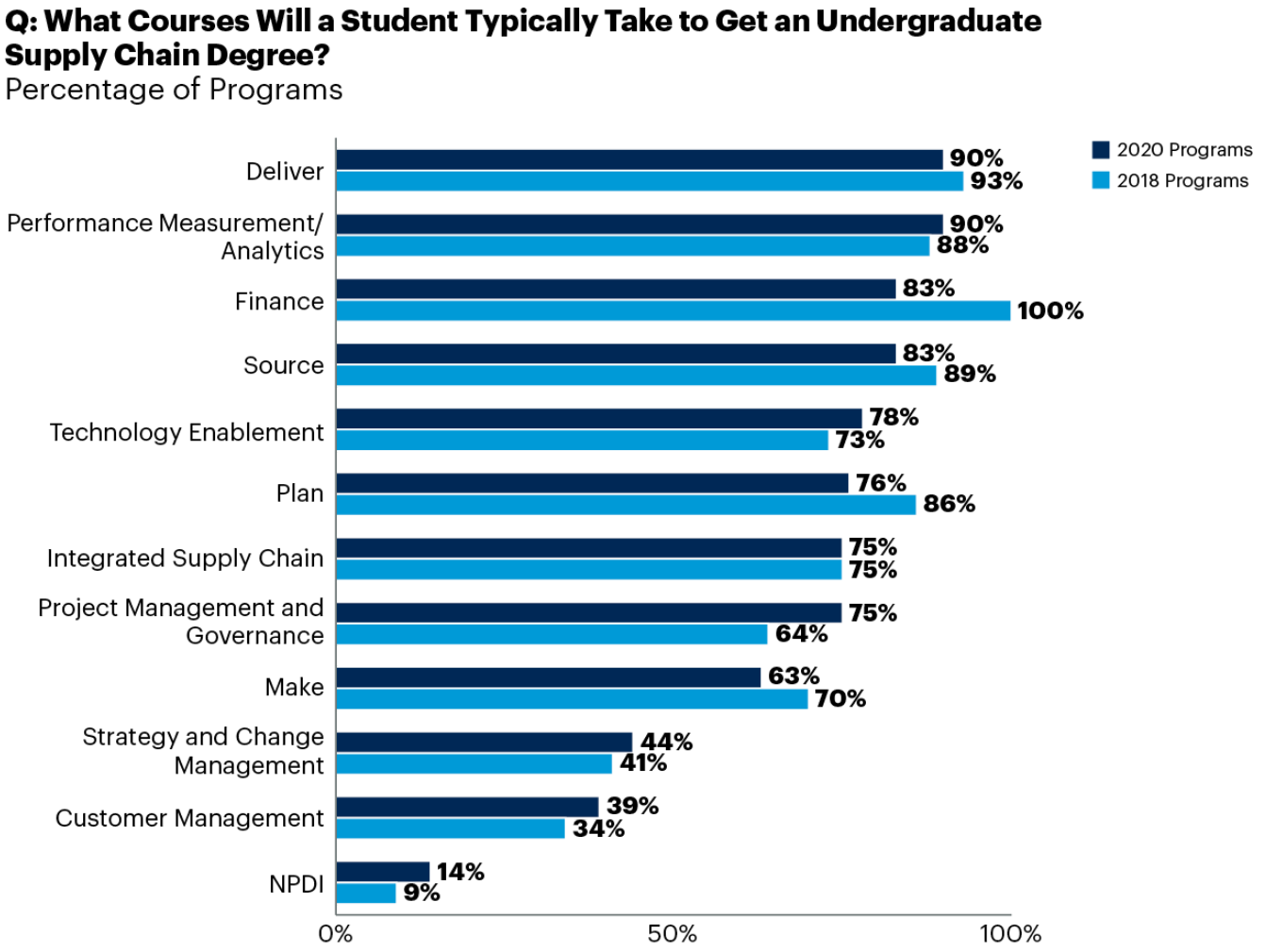
- There were a number of rising stars in this year's ranking. University of Texas Austin (up three spots to No. 4), University of South Carolina (up eight spots to No. 5), Bowling Green State University (up five spots to No. 16), Northeastern University (up two spots to No. 8). Marquette University, Miami University, and University of Texas, Dallas all improved their standing by four spots, to No. 12, No. 18, and No. 19, respectively.
- The most highly ranked "new" entrant in the undergraduate ranking is Howard University (No. 13), which missed the Top 25 in 2018, but had featured prominently in previous rankings. Another returnee to the undergraduate list after an absence in 2018 is University of Oklahoma (No. 24).
- Two other newcomers made the list for the first time in 2020: University of Illinois, Urbana-Champaign (No. 20) and North Carolina A&T State University (No. 21).

Notable Trends

Course Curriculums Are Expanding

Figure 2 shows the types of courses undergraduates will typically take to get a supply chain degree. We use the Gartner Talent Attribute Model to map schools' curricula against 12 different focus areas — one foundational (finance), four enabling, six functional and one cross-functional (integrated supply chain, which Gartner calls the demand-driven supply chain) (see Figure 6 in the Methodology section).

Figure 2: What Courses Will a Student Typically Take to Get an Undergraduate Supply Chain Degree?



n = 55 (2020 Programs); 56 (2018 Programs)

Source: Gartner

729916_C

- The average undergraduate supply chain curriculum continues to expand to encompass an integrated definition of supply chain. When measured against the 12-point Gartner Supply Chain Talent Attribute Model, we saw the average curriculum expand from 8.4 to 8.7 points. The Top 25 programs average a curriculum score of 9.6 points.

- Analytics continues to be a growing focus, with 90% of programs offering dedicated courses and content (up from 88%) in 2018. Content featuring supply chain technology was also more prominently featured, with 78% of programs featuring formal course work in this area (up from 73% in 2018).

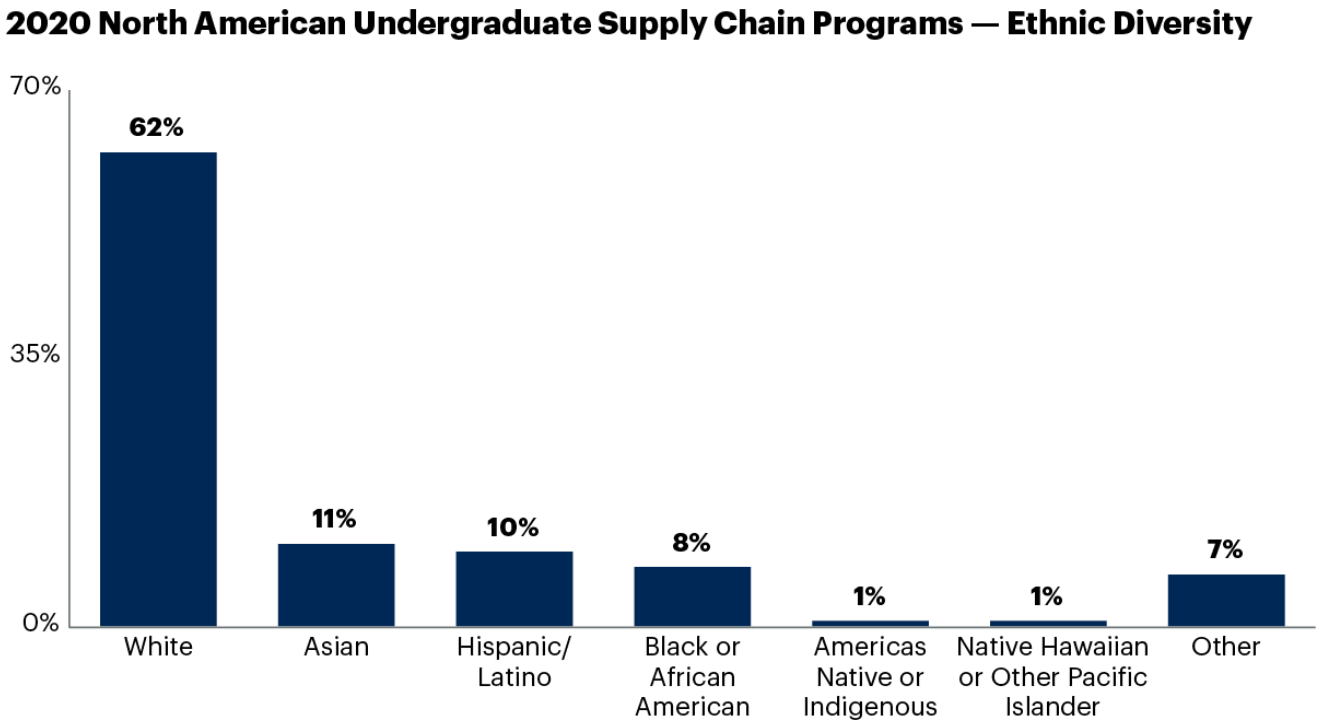
- We saw a jump in the number of programs that teach some aspect of new product development and introduction (NPDI) (an increase from 9% to 14%) and customer management (up to 39% this year), both of which are activities that are increasingly falling under the ownership of leading supply chain organizations.

- We also see a substantial increase in the representation of courses focused on strategy and change management (taught by 44% of programs), as well as project management and governance (up to 75% this year). Beyond functional expertise, university programs are recognizing the need for graduates that are capable of greater strategic thinking and long-term planning.

Diversity of Students and Faculty Remain Steady

- Across the 59 programs, women account for 39% of undergraduate enrollment on average, down slightly from 2018. Female faculty make up 24% of full-time instructors on average, which has gone up slightly since 2018.
- People of color account for 30% of full-time supply chain instructors on average, with women of color accounting for 8% on average. Student body diversity across 59 programs is broken down in Figure 3.

Figure 3: 2020 North American Undergraduate Supply Chain Programs — Ethnic Diversity



Placement Trends

- Georgia Institute of Technology has the highest undergraduate starting salary at $77,000 — engineering-aligned programs command premiums over degree programs in business schools. Top students in any program will also command higher salaries than average. The average

starting salary for undergraduates in 2020 was $58,569, up from $56,973 in 2018. The average starting salary for the Top 10 undergraduate programs is $63,067, up from $61,654 in 2018.

- Ninety-two percent of graduates are placed within three months of graduation, with 74% placed at or before graduation, which was about the same as 2018.

Performance Category Ranking

Figure 4 highlights more detail in our three main performance categories, including many excellent programs that just missed the cutoff from the undergraduate Top 25 ranking.

Figure 4. Top North American Undergraduate Programs in Program Scope, Industry Value and Program Size



Source: Gartner
729916_C

Program Scope: Most Comprehensive Curriculums

For program scope, where a diverse, balanced curriculum scored against the Gartner Supply Chain Talent Attribute Model (see Figure 6) receives the highest marks, the top program is University of Arkansas. Second-highest scoring university programs were Auburn University, Northeastern University and University of South Carolina. However, there were a number of programs that scored third highest in this category that still provide a robust curriculum. They include:

- Bowling Green State University

- Colorado State University
- Georgia Southern University
- Marquette University
- Rider University
- Syracuse University
- University of Minnesota
- University of Tennessee
- Western Michigan University

Program Size: Largest Programs

Undergraduate program growth has leveled off over the past four years. The big programs are still big, and only a few smaller programs have taken strides to grow enrollment and faculty. We look at both the number of full-time faculty, and the number of full- and part-time students for the undergraduate ranking. Based on these criteria, the largest programs are Georgia Institute of Technology, Pennsylvania State University, Rutgers University, University of Arkansas, University of South Carolina and University of Tennessee.

Industry Value: Most Valued by Industry

University programs that are industry value leaders tend to have strong internship participation with big companies, great alumni networks and brand recognition. These programs are most likely to be cited by supply chain professionals as one of the best undergraduate programs or a top program from which to recruit. Their graduates also command premium salaries. This year, University of Texas, Austin was at the top of the list. Pennsylvania State University had the second highest industry score along with Rutgers University and the University of Illinois, Urbana-Champaign. Georgia Institute of Technology scored third highest in this category.

Industry Value Detail: Greatest Internship Participation

Required internships are at the heart of our undergraduate research, based on supply chain client feedback first provided in the late 2000s. If a program doesn't have at least 75% internship participation (75% or more students interning prior to graduation), it is unlikely to be ranked in the Top 25. Table 2 lists programs that require internships or co-ops, as well as programs that put 90% or more of undergraduates through internships prior to graduation.

Table 2: Top Schools for Internship or Co-Op Participation

Required Undergraduate Internship or Co-Op Participation	*≥90% Undergraduate Internship Participation*
Auburn University	Brigham Young University
Ball State University	Georgia Institute of Technology
Marquette University	Miami University
Northeastern University	Michigan State University
Rider University	North Carolina A&T State University
Rutgers University	Purdue University
Syracuse University	Texas A&M University
The University of Texas, Austin	Texas Christian University
The University of Texas, Dallas	University of Pittsburgh
University of Arkansas	University of Minnesota
University of Illinois, Urbana-Champaign	University of Tennessee
University of North Texas	University of Wisconsin-Madison
Western Illinois University	University of Wisconsin-Whitewater
Western Michigan University	Washington University in St. Louis
Western Washington University	

Source: Gartner (June 2020)

Methodology

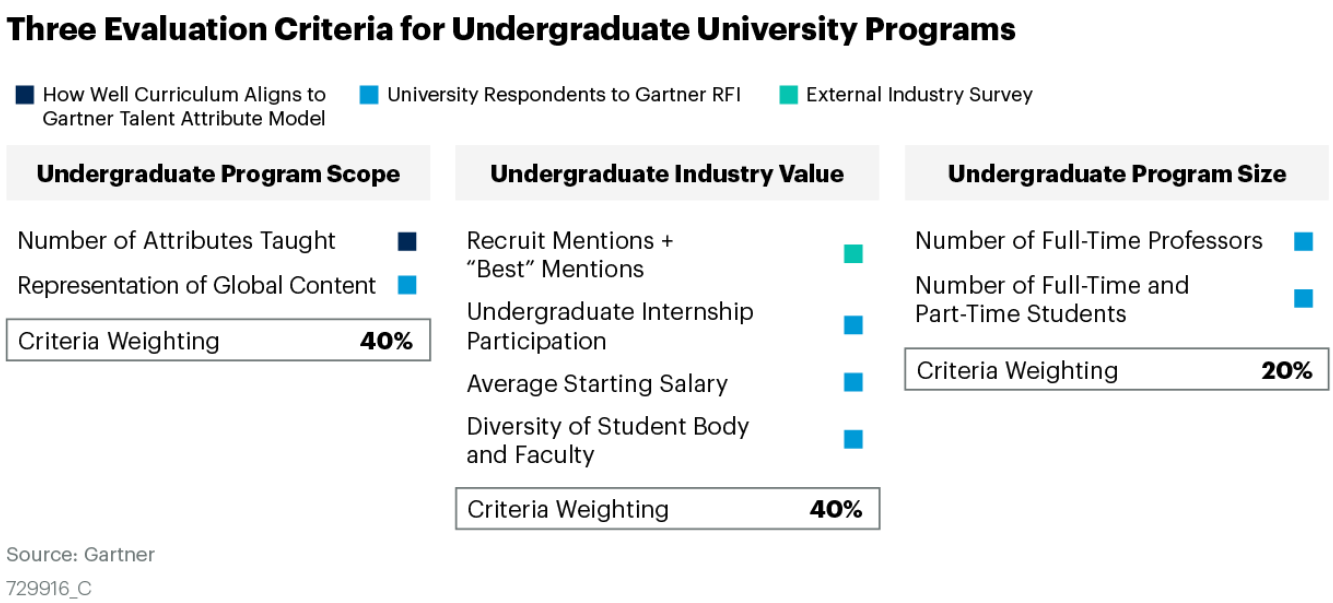
Gartner sent out individualized RFI links to 89 supply chain program contacts at universities in the U.S. and Canada. In total, 67 universities responded, 59 of which had undergraduate supply chain programs and provided complete RFI responses. We followed up with respondents where RFI responses were incomplete or unclear, and consulted university websites and course catalogs for additional information on program and course content. Responses and clarifications were collected throughout the second quarter of 2020.

The evaluation criteria for the programs appear in Figure 5. The final placement of university programs in our relative comparison is based on a composite score of the following three categories:

- Program scope
- Industry value
- Program size

Where programs tied, we looked at the curriculum score and advanced the program with the higher core curriculum score. Where programs were still tied, the program that requires internship participation was advanced. A third tiebreaker was focused on the school with the higher diversity and inclusion score.

Figure 5: Three Evaluation Criteria for Undergraduate University Programs

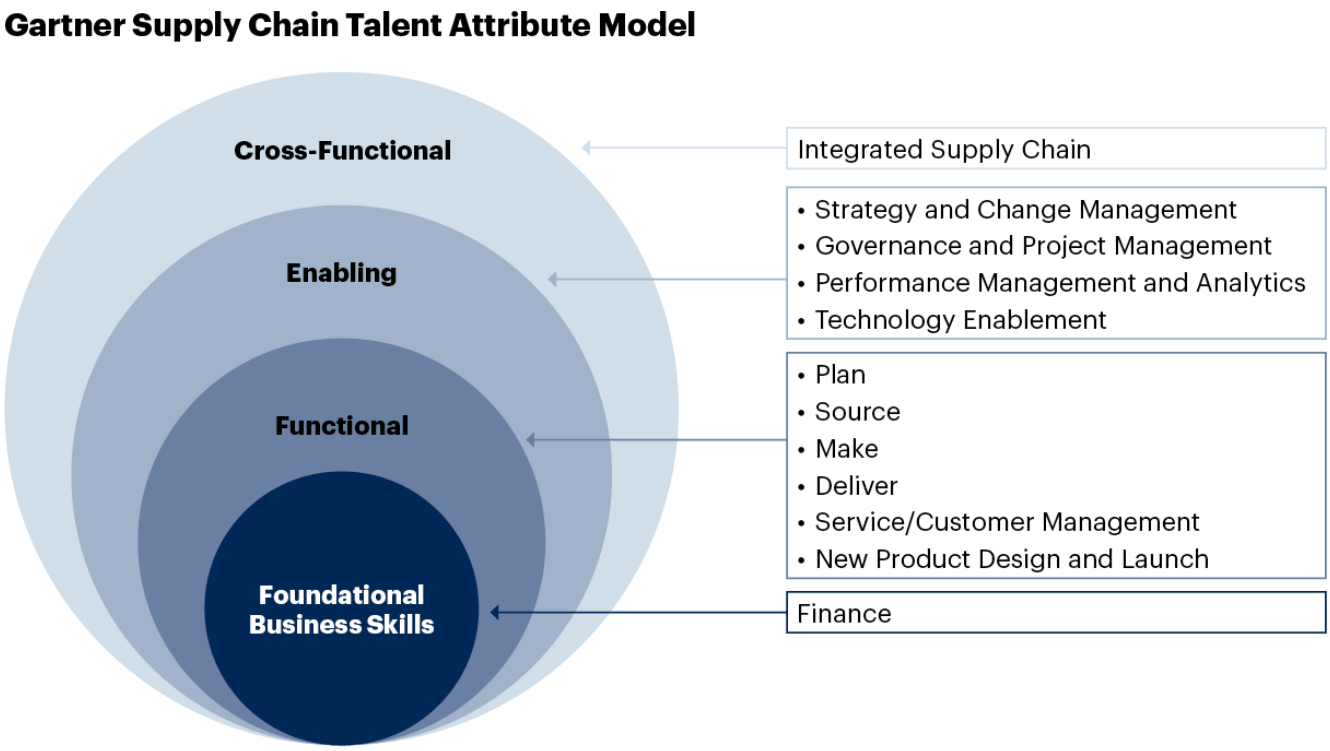


Criterion 1: Program Scope

We framed the scope of the supply chain university program with our Supply Chain Talent Attribute Model, which consists of 12 attributes — one foundational (finance), four enabling, six functional and one cross-functional (see Figure 6). As we evaluate programs, we look for well-rounded curricula because the industry values a broad understanding of global supply chains. We then

assess “well-rounded” by comparing the curricula of programs against our Talent Attribute Model, which represents a wide variety of disciplines that prepare students for careers. The supply chain course score used for this component ranking is based on the courses listed in RFI responses and publicly available course catalog data.

Figure 6: Gartner Supply Chain Talent Attribute Model



Source: Gartner
729916_C

For this year’s ranking, programs could also score an additional point within the program scope criterion for featuring global content. We looked for programs that were exposing students to content focused beyond North America and incorporating activities focused on problem solving at a global scale. Programs that gained a point for global content required at least two forms of hands-on learning interventions focused on global problem solving (for example, case studies in classrooms, consulting work on campus and/or virtually, and internships abroad). The program scope criterion is weighted at 40%.

Criterion 2: Industry Value

Weighted at 40%, industry value has an industry-facing survey component and an internal component. In parallel with sending out surveys to the university programs, we also conducted a survey where we ask supply chain practitioners across sectors two simple questions: (1) In your professional opinion, what are the top five supply chain university programs? and (2) What are the top five supply chain programs your company recruits from? Points are accorded for each mention. Links to the survey were distributed to all participating university programs, as well as via Gartner client and community channels.

From the university-provided data, we derive scores for average starting salary and internship participation. In our view, programs that require internships or have a high percentage of students participating in internships are programs that are preparing students to solve real-world problems through real-world experience. Programs that require internships or co-ops receive the highest scores for this criterion, with programs accorded points on a sliding scale, depending on what percentage of their undergraduates participate in internships prior to graduation.

This year's industry value measure also features a focus on diversity and inclusion. We evaluated the gender and ethnicity breakouts of both the faculty and the student population of each program. Programs that score highest in this criterion have students and faculty that are representative of gender parity and demonstrate a greater balance of ethnicities.

Criterion 3: Program Size

The number of full- and part-time supply chain students as well as full-time faculty in the program provides quantification of a given university's ability to sustain a pipeline of supply chain recruits for the industry. Even though the need for pure quality of recruits continues to be the primary theme as we talk to industry clients, they also consider volume, and so we continue to give program size a 20% weighting. We counted only full-time faculty engaged in classroom delivery of supply chain courses or research related to the supply chain program.

© 2020 Gartner, Inc. and/or its affiliates. All rights reserved. Gartner is a registered trademark of Gartner, Inc. and its affiliates. This publication may not be reproduced or distributed in any form without Gartner's prior written permission. It consists of the opinions of Gartner's research organization, which should not be construed as statements of fact. While the information contained in this publication has been obtained from sources believed to be reliable, Gartner disclaims all warranties as to the accuracy, completeness or adequacy of such information. Although Gartner research may address legal and financial issues, Gartner does not provide legal or investment advice and its research should not be construed or used as such. Your access and use of this publication are governed by Gartner's Usage Policy. Gartner prides itself on its reputation for independence and objectivity. Its research is produced independently by its research organization without input or influence from any third party. For further information, see "Guiding Principles on Independence and Objectivity."

Learn about Gartner supply chain talent insights now:
gartner.com/en/supply-chain/insights/supply-chain-talent-strategy

About Gartner

Gartner is the world's leading research and advisory company and a member of the S&P 500. We equip business leaders with indispensable insights, advice and tools to achieve their mission-critical priorities today and build the successful organizations of tomorrow.

Our unmatched combination of expert-led, practitioner-sourced and data-driven research steers clients toward the right decisions on the issues that matter most. We are a trusted advisor and an objective resource for more than 15,000 enterprises in more than 100 countries — across all major functions, in every industry and enterprise size.

To learn more about how we help decision makers fuel the future of business, visit **gartner.com.**

© 2020 Gartner, Inc. and/or its affiliates. All rights reserved. CM_GBS_973077

Gartner®