STRATEGIC PLAN
2020-2023

UNIVERSITY OF LOUISVILLE®

J.B. SPEED SCHOOL OF ENGINEERING
INTRODUCTION

This strategic plan represents a new chapter in Speed School’s continuous and dynamic evolution and development. Hundreds of faculty, staff, students, alumni and friends have helped us forge a framework that will position us for an ever-evolving future.

The plan focuses its key goals, strategies and tactics on what is critical for Speed School to become a world-class engineering school. We look forward to continuing to engage all our partners to grow the reputation of Speed School and increase its value to students, the community, the region and the world.

From its 1925 founding named for Louisville industrial icon and philanthropist James Breckinridge Speed, to its recognition today as a premier, metropolitan engineering institution, JB Speed School of Engineering stands as a proud pillar of opportunity and edification for aspiring engineers across the Commonwealth and the country.

The Speed School community has been shaped on a foundation of exemplary faculty and staff, capable and committed students, exceptionally accomplished alumni, and generous donors. The School is proud of its impressive history of achievements in engineering education, scholarship, diversity and service to the community.

Today’s more than 2500 enrolled engineering students at the undergraduate, graduate and PhD level become the movers, shakers and makers that create a better world tomorrow.

This strategic plan represents a new chapter in Speed School’s continuous and dynamic evolution and development. Hundreds of faculty, staff, students, alumni and friends have helped us forge a framework that will position us for an ever-evolving future. The plan focuses its key goals, strategies and tactics on what is critical for Speed School to become a world-class engineering school.
TABLE OF CONTENTS

This Speed School strategic plan lays out not only our mission, vision and history but the blueprint to move forward as an engineering school first in its class. We will excel at giving our students, faculty, staff and partners the opportunity to Learn, Work and Invest in our shared future as a school and a community.
LETTER FROM THE ENGINEERING DEAN

Since my arrival in 2018, I have been incredibly impressed with Speed School and the enthusiastic engagement of our faculty, staff, students, alumni, industry partners and friends. This is a place for ideas that will transform and reimagine our world. A place for both dreamers and doers. A place where diligent and impassioned students, staff, and faculty bring invention and innovation alive. A place where our research, diversity, scholarship and service transform our communities and extend our economic impact into the region and beyond.

With the robust co-op program, our students become sought after engineers with a full year of work experience upon graduation. Our faculty are top notch instructors and the best researchers in their fields, continually bringing new innovations to our local, regional and national communities.

To continue to honor this vibrant tradition of success, we have worked as a team to create a blueprint for our future with this strategic plan. It strengthens our mission for Speed School to be a great place to learn, work and invest. It is thanks to the passion, dedication and caring of all the Speed School community that we have this dynamic plan that will evolve in response to the needs of academia and industry.

We are poised to make Speed School of Engineering a premier choice, competitive with other prestigious institutions. We will continue to welcome the thoughts and suggestions of all our friends to determine the best path forward.

Emmanuel G. Collins, Ph.D
Dean, J.B. Speed School of Engineering
ABOUT THE J.B. SPEED SCHOOL OF ENGINEERING

From its 1925 founding named for Louisville industrial icon and philanthropist James Breckinridge Speed, to its recognition today as a premier, metropolitan engineering institution, JB Speed School of Engineering stands as a proud pillar of opportunity and edification for aspiring engineers across the Commonwealth and the country.

The Speed School community has been shaped on a foundation of exemplary faculty and staff, capable and committed students, exceptionally accomplished alumni, and generous donors. The School is proud of its impressive history of achievements in engineering education, scholarship, diversity and service to the community.

J.B. Speed School of Engineering is accredited for bachelor’s degree and master’s degree programs in Bioengineering, Chemical Engineering, Civil Engineering, Computer Science and Engineering, Electrical Engineering, Industrial Engineering, and Mechanical Engineering.

A Speed School student receives a transformative education, with the benefits of a large research university and the friendliness of a small-town college. Speed School cultivates world-class, lab-trained engineers with industry experience who are well prepared to meet the challenges of tomorrow with competitive critical thinking and problem-solving skills.

With this foundation, today’s more than 2500 enrolled engineering students at the undergraduate, graduate and PhD level become the movers, shakers and makers that create a better world for tomorrow.
OUR VISION
Is to become THE global leader of experiential-based engineering education and high-quality scientific and applied research in featured areas.

OUR MISSION
Speed School pursues prominence as a metropolitan school of engineering by:
• Producing high quality engineers that have strong theoretical and experiential training.
• Creating a welcoming environment for engineering students from all backgrounds.
• Partnering with regional technology and manufacturing partners to enhance student career readiness for anticipated workforce needs.
• Conducting high quality scientific and applied research in featured areas of research to advance knowledge and to solve practical problems.
CORE VALUES

The Speed School community is committed to exemplifying the Cardinal principles. The symbol of this character is illustrated by an imposing shiny black granite sculpture called Integrity donated by esteemed alumnus Bernie Dahlem. Inscribed on the sculpture are words engineers live by, the eligibility code of engineering honor society Tau Beta Pi:

We consider that integrity is the sine qua non for membership in Tau Beta Pi; that it transcends in importance scholarship, activity and every other qualification. Without private and public integrity, we believe that no organization is worthy of existence. Under integrity, we include honor and high standards of truth and justice.

Let us be a college that is a Community of Care. This care is to extend to be manifested in the community, striving to meet their needs in engineering education.

Accountability. We keep our promises to one another and to those outside the college. We are not afraid to admit mistakes. We are accountable to the Speed School team.

Respect, irrespective of position. We respect everyone in Speed School no matter their position. We also respect our rights to differing and conflicting positions on various issues. We foster these values in Speed School students.

Diversity and Inclusion. We seek to build a diverse community of students, faculty, and staff, and an environment that let’s each person know they are included in the Speed School family.

Integrity and Transparency. We strive to develop engineers that desire to make a positive impact and improve the quality of life in the communities of our world.

Noble Purpose. We recognize that we are in a rapidly changing world and that to thrive and not just survive we must be quick to adapt to these changes. A college must be nimble to be successful.

Agility. We foster leaders who seek to bring positive change and guidance to Speed School. These leaders may or may not be in formal management positions. However, they make a difference. Anyone has the capacity to step up as a leader.
COMMITTEES

For the Speed School Strategic Plan, the priorities of Learn, Work and Invest are so critical that the three cross-sectional workgroups have been established to focus efforts on these key areas. Each group includes faculty, staff, students, alumni and friends. Key representatives from a diversity of university government, commissions and other strategic partners have been consulted and involved in the decisions to help define the plan’s strategies, actions and timelines.

Learn

Angela Akridge
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Angela Coyle
Dr. Gail DePuy
Kari Donahue
Dr. Ayman El-Baz
Dr. Adel Elmaghraby
Dr. Mark French
Dr. Monica Gentili
Dr. Liz Gentry
Dr. Erin Gerber
Dr. Guruprasad Giridharan

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Todd Hoffmann
Johnathan Hughes
Lauren Klingshirm
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Andrew Marsh
Katherine Markuson
Dr. Kevin Murphy
Heidi Neal
Dr. Olfa Nasraoui
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Dr. Dan Popa
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Dr. Tom Rockaway
Travis Ross
Jessica Sharon
Jacqui Smith
Dr. Patricia Soucy
Dr. Mahendra Sunkara
Dr. Angela Thompson
Dr. Kevin Walsh
Dr. Stuart Williams
Dr. Gerry Willing
Dr. Wei Zhang
Jen Zoller

Invest

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Dr. Mara Broering
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Leigh Ann Elles
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Dr. Brian Robinson
Travis Ross
Ana Sanchez
Jacqui Smith
Dr. Kevin Walsh
The J.B. Speed School of Engineering is a great place to LEARN because we produce world-class engineers who are well-prepared to meet the challenges of tomorrow with critical thinking and problem solving skills. Our graduates enter the workforce with a year’s worth of on-the-job experience.
A GREAT PLACE TO LEARN

L1: With guidance from workforce leaders and research needs, Speed School will recruit and graduate the most talented, diverse student body through meaningful and structured commitment to student success, to raise Speed School’s national and international prominence.

A1. Recruit and enroll a capable, diverse, and engaged student body responsive to the current and future workforce and research needs.

A2. Improve retention to graduation and ensure progress toward equal outcomes for underrepresented, underprepared, and low-income student sub-populations.

A3. Inspire a student-centered culture by improving the efficiency and user-experience of our systems and the faculty and staff’s responsibility in contributing to student success.

A4. Increase and enhance learning community (LC) initiatives and expand/improve current Living Learning Community to serve a diverse student population.

A5. And expand our global footprint and impact by increasing the percentage of students who participate in global cross-cultural study, research, and/or service experiences.

L2: Engage every undergraduate student in required meaningful and experiential learning opportunities.

A1. While maintaining and improving Speed School’s successful 3 term co-op rotation, we will increase the number of students participating in the newer co-op options.

A2. Also, we will increase the number and diversity of undergraduate students participating in undergraduate research opportunities.

L3: Engage graduate students in research that will bolster our prominence among Carnegie-classified Research 1 colleges of engineering.

A1. Involve engineering students in prioritized, university-wide Grand Challenges in research.

A2. Highlight and advertise research focus areas and research centers to prospective graduate students.

A3. Increase the number of research scholarship opportunities.
A GREAT PLACE TO LEARN

STRATEGY L1: With guidance from workforce leaders and research needs, Speed School will recruit and graduate the most talented, diverse student body through meaningful and structured commitment to student success, to raise Speed School’s national and international prominence.

ACTION L1.A1:

Attract and enroll a student body that is capable, engaged, and growing in diversity and size. This body is to be responsive to the demographic and workforce needs of the future both at an undergraduate and graduate level.

WHAT WILL SUCCESS LOOK LIKE?

1. UofL’s CPE performance-based funding score optimized focusing on engineering enrollment, degree progression, and degrees granted.
2. Brand campaign recruits and enrolls a capable, diverse, and engaged student body.
3. Holistic and individualized approach in recruiting and supporting students of underrepresented backgrounds.
4. Engineering students receive increased allocation of scholarship funds, new course/program offerings are developed to meet their needs.
5. Online courses developed to meet the needs of increased enrollment, adult learners, and industry needs.
6. Key enrollment markers easily tracked for each department.

ACTION L1.A2:

Improve retention and persistence to graduation and ensure progress toward equal outcomes for underrepresented, underprepared, and low income student sub populations.

WHAT WILL SUCCESS LOOK LIKE?

1. Transition programming helps first year (undergraduate, graduate, and professional) students adjust to college.
2. Academic Orientation content administered to all new SSoE students increases student awareness and engagement with SSoE services and resources (e.g. student support services).
3. New program established to help non-traditional students (adult learners, transfers, commuters) increase their ability to adjust academically and socially to the college environment from matriculation to graduation.
4. Improve the support, recruitment, and transfer processes between Speed School and pre-engineering students.
A GREAT PLACE TO LEARN

STRATEGY L1: With guidance from workforce leaders and research needs, Speed School will recruit and graduate the most talented, diverse student body through meaningful and structured commitment to student success, to raise Speed School's national and international prominence.

ACTION L1.A3:

Inspire a student centered culture by improving the efficiency and user experience of our systems and the faculty and staff’s responsible ownership of student success.

WHAT WILL SUCCESS LOOK LIKE?

1. Established guidelines and expectations for faculty and staff that reinforce student-centered culture and mindset.
2. Broad participation by faculty and staff in regularly occurring ongoing professional development opportunities that reinforce a student-centered mindset.
3. Evidence of proficiency in teaching includes the documented used of high impact practices and evidence-based teaching strategies.
4. Working from lower division undergraduate courses to upper division undergraduate courses, an increasing number of these courses faculty provide every student with a mid-semester progress report that is shared with academic counselors/advisors and student success coordinators.
5. Doctoral students and their research advisor complete a brief annual evaluation form that is submitted to the director of graduate studies.
6. Consistent use of technology across all classrooms on Speed campus with a standing committee that includes faculty, students, and staff, reviewing and coordinating classroom upgrades and remodels.
7. Graduate and undergraduate students can easily find and navigate current information about all undergraduate support services, resources, and requirements through a centralized platform aligned with student questions rather than institutional answers and jargon.
8. All new hires in Speed, both faculty and staff, participate in a semester long structured on-boarding process that prepares them to promote a student-centered mindset and integrates with university on-boarding.
9. Automated Speed School scholarship awards and eligibility tracking works in coordination with central administration and university development's timely sharing of relevant scholarship information so that the awarding of Speed Scholarships (for graduate and undergraduate) is optimized to achieve an efficient use of available funds.
10. Academic workflows are managed and tracked online so that all parties know the required actions, current status, and notification of outcomes.
11. Students use tutoring on Speed campus extensively because the times and type of services offered are informed by student input.
12. Appropriate, safe, and healthy learning environment, including experiential learning environments that meets students academic and personal needs (lactation, prayer, bathrooms, etc.).
A GREAT PLACE TO LEARN

STRATEGY L1: With guidance from workforce leaders and research needs, Speed School will recruit and graduate the most talented, diverse student body through meaningful and structured commitment to student success, to raise Speed School’s national and international prominence.

ACTION L1.A4:

Increase and enhance learning community (LC) initiatives and improvement/ expansion of current Living Learning Communities to serve a diverse student population.

WHAT WILL SUCCESS LOOK LIKE?

1. A larger, more diverse population of students benefits from participation in Living Learning Communities (LLCs), Learning Communities (LCs) and Themed Communities (TCs) including first generation college, commuter, upper-level and online students.
2. Faculty engagement within LLCs, LCs and TCs increased to support student success.
3. LLC hosted early arrival programs (ahead of the traditional Campus Housing move in date).
4. Impact of LLCs, LCs and TCs on student success evaluated.
5. LLC courses offered within LLC quarters.

ACTION L1.A5:

Expand global footprint/impact by increasing the percentage of students who participate in global cross cultural study, research, and/or service experiences; and increasing UofL’s international student community.

WHAT WILL SUCCESS LOOK LIKE?

1. The number of international students and scholars is increased.
2. Current students have increased international research and study abroad opportunities.
3. Institutional collaborations with international communities and schools organized and expanded.
A GREAT PLACE TO LEARN

STRATEGY L2:
Engage every undergraduate student in required and meaningful experiential learning opportunities.

ACTION L2.A1:
Maintain Speed School’s successful 3 term co-op rotation, increase the number of students participating in the newer co-op rotation.

WHAT WILL SUCCESS LOOK LIKE?

1. Needs assessment regarding student experiential learning opportunities (including faculty, students, and alumni) completed and report shared.
2. Community survey conducted to determine experiences employers value from recent college graduates, and data used to determine which will be presented in a proposal outlining the outcomes, measures, and timeline.
3. Key faculty and staff in each unit identified to facilitate meaningful experiential learning opportunities.
4. New partnerships established with local businesses and organizations.
5. Appropriate culturally responsive policy developed to establish/support skill-focused experiential learning environment at UofL.
6. Faculty and staff provided training to drive maximum student participation in experiential learning opportunities.
7. Funding opportunities identified and secured that support unpaid internships.
A GREAT PLACE TO LEARN

STRATEGY L2:
Engage every undergraduate student in required and meaningful experiential learning opportunities.

ACTION L2.A2:
Increase the number and diversity of undergraduate students participating in undergraduate research opportunities both within and without the co-op program.

WHAT WILL SUCCESS LOOK LIKE?
1. Create a qualified committee to identify research opportunities for Speed undergraduates and track engagement. The committee would have representation from our research faculty, core facilities, research centers, research institutes, industry partnerships, and the Speed School co-op research track.
2. Establish a campaign to increase student awareness of Speed School undergraduate research opportunities.

ACTION L2.A3:
Develop cross unit certificate programs which enhance the students' knowledge and experiential learning.

WHAT WILL SUCCESS LOOK LIKE?
1. Determine units that will develop identified core skill programs. Additionally, incorporate IBM badges into the certificate programs.
2. Establish campaign for advisors to increase student awareness of certificate programs.
A GREAT PLACE TO LEARN

STRATEGY L3:
Engage graduate students in research that will bolster our prominence among Carnegie-classified Research 1 colleges of engineering.

ACTION L3.A1:
Involve engineering students in prioritized, university-wide Grand Challenges in research.

WHAT WILL SUCCESS LOOK LIKE?
1. Research plans developed that include professional, graduate, and undergraduate students.
2. Students involved in all research funded through internal grant programs.
3. Prioritize historically underrepresented students in the university’s scholarly contributions and research activities related to the Grand Challenges.

ACTION L3.A2:
Highlight and advertise to potential graduate students our research focus areas and research centers.

WHAT WILL SUCCESS LOOK LIKE?
1. Awareness campaign implemented targeting UofL undergraduate students to increase their institutional literacy related to research areas, centers, and institutes.
2. Marketing campaign tied to graduate student recruitment developed.
3. Improve Graduate Research Assistant hiring procedures to make them understandable and streamline the matching process of qualified applicants to interested faculty and staff researchers.
**A GREAT PLACE TO LEARN**

**STRATEGY L1:**
With guidance from workforce leaders and research needs, Speed School will recruit and graduate the most talented, diverse student body through meaningful and structured commitment to student success, to raise Speed School’s national and international prominence.

**STRATEGY L2:**
Engage every undergraduate student in required, and meaningful experiential learning opportunities.

**STRATEGY L3:**
Engage graduate students in research that will bolster our prominence among Carnegie-classified Research 1 colleges of engineering.

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### METRIC

<table>
<thead>
<tr>
<th>Definition</th>
<th>2019 Baseline</th>
<th>2023 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scholarship Awards (AY)</strong> (Undergraduate)</td>
<td>% of need based aid for first time freshmen</td>
<td>N/A</td>
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<tr>
<td>Scholarship dollar amount to Speed School students from UofL</td>
<td>$7,000,000</td>
<td>$10,200,000</td>
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<tr>
<td>Scholarship dollar amount to Speed School students from unit</td>
<td>$180,000</td>
<td>$250,000</td>
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### Enrollment (AY)

<table>
<thead>
<tr>
<th>Undergraduate Enrollment (total)</th>
<th>2,016</th>
<th>2,075</th>
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<tbody>
<tr>
<td>• Underrepresented Minority</td>
<td>279</td>
<td>300</td>
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<tr>
<td>• First Generation</td>
<td>266</td>
<td>274</td>
</tr>
<tr>
<td>• Female</td>
<td>461</td>
<td>480</td>
</tr>
<tr>
<td>• Adult Students (25+ degree seeking only)</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>• Online Students</td>
<td>665</td>
<td>700</td>
</tr>
<tr>
<td>• International Students</td>
<td>51</td>
<td>65</td>
</tr>
<tr>
<td>Graduate Enrollment (total)</td>
<td>205</td>
<td>212</td>
</tr>
<tr>
<td>• Underrepresented Minority</td>
<td>N/A</td>
<td></td>
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<tr>
<td>• Online Students</td>
<td>120</td>
<td>144</td>
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### Retention (AY)

<table>
<thead>
<tr>
<th>First to Second Year (total)</th>
<th>69.1 %</th>
<th>82.6 %</th>
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<tbody>
<tr>
<td>• Underrepresented Minority</td>
<td>71.4 %</td>
<td>81.4 %</td>
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<tr>
<td>• Low Income</td>
<td>65.2 %</td>
<td>78.5 %</td>
</tr>
<tr>
<td>First to Third Year (total)</td>
<td>63.0 %</td>
<td>74.7 %</td>
</tr>
<tr>
<td>• Underrepresented Minority</td>
<td>56.1 %</td>
<td>75.3 %</td>
</tr>
<tr>
<td>• Low Income</td>
<td>69.7 %</td>
<td>70.6 %</td>
</tr>
</tbody>
</table>

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Some of the data corresponds to the Academic Year (AY), which runs from the beginning of the fall semester through the end of the summer semester. The 2019 baselines correspond to AY 2019, which runs from Fall 2018 through Summer 2019. The 2023 target corresponds to AY 2023, which runs from Fall 2022 through Summer 2023.
STRATEGY L1:
With guidance from workforce leaders and research needs, Speed School will recruit and graduate the most talented, diverse student body through meaningful and structured commitment to student success, to raise Speed School’s national and international prominence.

STRATEGY L2:
Engage every undergraduate student in required, and meaningful experiential learning opportunities.

STRATEGY L3:
Engage graduate students in research that will bolster our prominence among Carnegie-classified Research 1 colleges of engineering.

<table>
<thead>
<tr>
<th>METRIC</th>
<th>DEFINITION</th>
<th>2018-2019 GRADS</th>
<th>2023 TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degrees Awarded (AY) Bachelor</td>
<td>• Underrepresented Minority</td>
<td>51</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>• Low Income</td>
<td>64</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>Master</td>
<td>259</td>
<td>261</td>
</tr>
<tr>
<td></td>
<td>• Underrepresented Minority</td>
<td>20</td>
<td>22</td>
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<tr>
<td></td>
<td>• Low Income</td>
<td>57</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Doctoral (Research)</td>
<td>25</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>• Underrepresented Minority</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Professional (Certificates)</td>
<td>26</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>• Underrepresented Minority</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>• Low Income</td>
<td>17</td>
<td>19</td>
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</tbody>
</table>

Student Participation in High Impact Practices (AY)

<table>
<thead>
<tr>
<th>Professional</th>
<th>2018-2019</th>
<th>2023 TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living Learning Community</td>
<td>217</td>
<td>230</td>
</tr>
<tr>
<td>Experiential Learning</td>
<td>Awaiting data from central administration</td>
<td>****</td>
</tr>
<tr>
<td>Research</td>
<td>Awaiting data from central administration</td>
<td>****</td>
</tr>
<tr>
<td>Study Abroad (receiving credit at UofL)</td>
<td>Awaiting data from central administration</td>
<td>****</td>
</tr>
</tbody>
</table>

A GREAT PLACE TO LEARN

STRATEGIC GOAL:
The Speed School of Engineering is a great place to LEARN because it prepares students for success now, next and beyond. We accomplish this by supporting the whole student through transformative purpose-driven and engaged learning.

Some of the data corresponds to the Academic Year (AY), which runs from the beginning of the fall semester through the end of the summer semester. The 2019 baselines corresponds to AY 2019, which runs from Fall 2018 through Summer 2019. The 2023 target corresponds to AY2023, which runs from Fall 2022 through Summer 2023.
The J.B. Speed School of Engineering is a great place to **work** because we value the diversity, capabilities and dedication of our faculty, staff and administration. We promote policies and practices that nurture a positive culture of continuous professional development, growth and teamwork.
W1: Become an employer of choice that intentionally attracts and retains the most talented and diverse faculty and staff through meaningful and structured commitment to employee success.

A1. Develop hiring practices to attract competitive candidates and support diversity, equity and inclusion.

A2. Improve the onboarding experience for new hires and current employees who move into new positions.

A3. Promote systematic and uniform opportunities for career advancement of employees.

A4. Ensure employees are provided an adequate and safe workplace and maintain a healthy work/life balance by improving policies and training leaders to maximize employee potential.

W2: Inspire a culture of care, trust, accountability, equity and transparency by embedding the Cardinal Principles in the fabric of the university.

A1. Implement and incentivize a Cardinal Principles training program to cultivate noble leaders and to hold them accountable for improving climate and culture outcomes at all levels of the university.
A GREAT PLACE TO WORK

STRATEGY W1:
Become an employer of choice that intentionally attracts and retains the most talented and diverse faculty and staff through meaningful and structured commitment to employee success.

ACTION W1.A1:
Develop hiring practices to attract competitive candidates and support diversity, equity and inclusion.

WHAT WILL SUCCESS LOOK LIKE?

1. A comprehensive marketing and recruitment plan that promotes the SSoE as a Great Place to Work deployed in areas from which university employees are recruited and that encourages high quality internal and external candidates for vacant positions.

2. Representation of underrepresented groups increasingly matches or exceeds the demographic diversity of the city.

3. All members of hiring or search committees participate in search committee training.

ACTION W1.A2:
Improve the onboarding experience for new hires and current employees who move into new positions.

WHAT WILL SUCCESS LOOK LIKE?

1. The university has ongoing and comprehensive onboarding experiences for all employee groups, as appropriate, based on their role in the university (faculty, full time and temporary staff, and student staff). Success will be 90% retention of new employees that are hired.

2. Employee development programming provided that aligns with university goals and priorities (e.g., supervisory training, emerging leader training, internship/ shadowing opportunities for faculty and staff, and skilled trades apprenticeships). Success will be making this participation a biannual requirement and including this requirement in all Performance Appraisal Forms (PAFs) and faculty and administrator Annual Work Plans (AWPs).

3. Opportunities ensured by the deans office for employees to participate in professional development offerings during work hours.
A GREAT PLACE TO WORK

STRATEGY W1:
Become an employer of choice that intentionally attracts and retains the most talented and diverse faculty and staff through meaningful and structured commitment to employee success.

ACTION W1.A3:
Promote systematic and uniform opportunities for career advancement of employees.

WHAT WILL SUCCESS LOOK LIKE?
1. Unit policies, programs, systems and resources specifically designed to support employee career advancement within the university (e.g., career ladders and coaching) for both faculty and staff
2. Career ladders developed for all staff positions
3. Term faculty advancement-who reviews (P&T), what training is provided?
4. Faculty mentoring programs
5. Staff mentoring programming
6. Faculty activity training- SSoE level and department

ACTION W1.A4:
Ensure employees are provided an adequate and safe workplace and maintain a healthy work/life balance by improving policies and training leaders to maximize employee potential.

WHAT WILL SUCCESS LOOK LIKE?
1. Policy revisions and best practice-based recommendations developed and implemented that cultivate a healthy institutional culture around work/life balance.
2. Adequate, safe and healthy work environment that meets professional and personal needs (lactation, prayer, bathrooms, etc.) is afforded to every employee.
3. A review of employees’ and students schedules that have third shift operations conducted, and appropriate action taken to address related safety issues and meet employee work/life balance interests.
A GREAT PLACE TO WORK

STRATEGY W2:
Inspire a culture of care, trust, accountability, equity and transparency by embedding the Cardinal Principles in the fabric of the university.

ACTION W2.A1:
Review climate survey data and create and implement action plans to address identified concerns in a timely manner.

WHAT WILL SUCCESS LOOK LIKE?
1. Unit leaders are expected to — and are recognized for — proactively addressing problematic issues identified in campus climate surveys.
A GREAT PLACE TO WORK

STRATEGIC GOAL:
The University of Louisville is a great place to WORK because it is a workplace dedicated to personal growth and professional development. We accomplish this by fostering a culture where faculty, staff and administration live our institutional values.

STRATEGY W1:
Become an employer of choice that intentionally attracts and retains the most talented and diverse faculty and staff through meaningful and structured commitment to employee success.

STRATEGY W2:
Inspire a culture of care, trust, accountability, equity and transparency by embedding the Cardinal Principles in the fabric of the university.

STRATEGY W3:
Provide all faculty and staff fair and equitable compensation recognizing that our employees are critical to attaining institutional success.

METRIC
Decrease employment rate gap for select groups compared with national benchmark data (FY)

<table>
<thead>
<tr>
<th>DEFINITION</th>
<th>2019 BASELINE</th>
<th>2023 TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Female</td>
<td>25 *</td>
<td>*</td>
</tr>
<tr>
<td>• African American/Black</td>
<td>1 *</td>
<td></td>
</tr>
<tr>
<td>• Hispanic/Latinx</td>
<td>3 *</td>
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</tr>
<tr>
<td>• Asian</td>
<td>27 *</td>
<td>*</td>
</tr>
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<td></td>
</tr>
<tr>
<td>Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Female</td>
<td>59 *</td>
<td>*</td>
</tr>
<tr>
<td>• African American/Black</td>
<td>5 *</td>
<td></td>
</tr>
<tr>
<td>• Hispanic/Latinx</td>
<td>1 *</td>
<td></td>
</tr>
<tr>
<td>• Asian</td>
<td>7 *</td>
<td>*</td>
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<td>• Native Hawaiian or Other Pacific Islander</td>
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<td></td>
</tr>
<tr>
<td>• American Indian or Native Alaskan Staff</td>
<td>1 *</td>
<td></td>
</tr>
<tr>
<td>• American Indian or Native Alaskan Staff</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

Employee Success Center/Professional Development (FY)

- # of Professional Development Opportunities Provided Through the Employee Success Center Employee Participation in professional development
  - On Campus
  - Other
- Other Employee Satisfaction with Professional Development Opportunities

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A GREAT PLACE TO WORK

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METRIC DEFINITION

uofL Climate (FY)
Employee participation in Climate Surveys (Chronicle Great Places to Work/Internal Campus Climate and Diversity Survey)
Overall employee perception on Climate Surveys (Chronicle Great Places to Work/Internal Campus Climate and Diversity Survey)
Employee perception of compensation and benefits
Employee perception of diversity/inclusion
Employee perception of work/life balance
Employee perception of work environment
Employee perception of leadership

Employee Compensation Gap (decrease compared to market) (FY)

Faculty
• Female
• African American/Black
• Hispanic/Latinx
• Asian
• Native Hawaiian or Other Pacific Islander
• American Indian or Native Alaskan Staff

Staff
• Female
• African American/Black
• Hispanic/Latinx
• Asian
• Native Hawaiian or Other Pacific Islander
• American Indian or Native Alaskan Staff

2019 BASELINE 2023 TARGET

The University of Louisville is a great place to WORK because it is a workplace dedicated to personal growth and professional development. We accomplish this by fostering a culture where faculty, staff and administration live our institutional values.

METRIC DEFINITION 2019 BASELINE 2023 TARGET

uofL Climate (FY)
Employee participation in Climate Surveys (Chronicle Great Places to Work/Internal Campus Climate and Diversity Survey)
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The J.B. Speed School of Engineering is a great place to **INVEST** because the success of our students, faculty and administration effects positive change in our communities. Supported by distinguished and engaged alumni and corporate partners, our work in technology, industry, the environment and more will have a sustaining impact for generations.
A GREAT PLACE TO INVEST

I1: Increase productivity and innovation in research, scholarship and creative activities addressing the Grand Challenges to bolster our prominence among Carnegie classified Research 1 universities.

A1. Build resourced research networks that transcend individual disciplines to and solutions to the Grand Challenges.

A2: Strengthen UofL’s R1 standing by increasing scholarship support, fellowship opportunities, graduate degrees and postdoctoral training, and national academy memberships.

A3: Strengthen research infrastructure to enable faculty and staff to secure external grants, foundation funding and contracts.

A4: Prioritize underrepresented communities in engineering scholarly contributions and research activities.

I2: Improve the ease and impact of partnering with the university by building and stewarding mutually beneficial relationships that support student success, faculty productivity and staff development.

A1. Provide existing and potential partners with easier access to engaging Speed School knowledge, experience, and talents.

A2: Develop a comprehensive alumni engagement platform to integrate alumni and friends in the University’s shared interests, areas of expertise and Grand Challenges.

A3: Develop value added partnerships with business and industry partners.

A4: Improve student career readiness and outcomes by developing a comprehensive P 20 engagement platform, giving special attention to historically underrepresented and STEM+H communities.

I3: Create social, cultural, and learning opportunities that bring people to campus or bring the campus to people (virtual and external partnerships) that improve quality of life by leveraging faculty, staff and student expertise and talent.

A1. Bringing people to campus: expand programming designed to appeal to large, diverse audiences in order to bring more people to campus (e.g. lectures, Engineering Day, E-Expo, etc).

A2: Bringing campus to people: Increase number of programmatic offerings and of campus spaces which foster local and global community engagement with the university.

A3: Marketing and promotion: Improve Speed School’s local and global marketing, communications, and digital presence to increase engagement and access to knowledge.
A GREAT PLACE TO INVEST

STRATEGY II:
Increase productivity and innovation in research, scholarship and creative activities addressing the Grand Challenges to bolster our prominence among Carnegie-classified Research 1 universities.

ACTION II.A1:
Build resourced research networks that transcend individual disciplines to and solutions to the Grand Challenges.

WHAT WILL SUCCESS LOOK LIKE?
1. Grand Challenges research networks serve as hubs for idea incubation, professional development and community engagement, and generate increased internal, external, public and private support for key research areas.

2. Enhanced technology infrastructure supports and facilitates world class transdisciplinary research, scholarship and creative activity.

3. High impact Grand Challenges research, scholarship and creative activity in areas with fewer major sponsored research dollars is supported through institutional grants from new endowments.

4. Annual University Impact Report highlights the impact of current research, scholarship and creative activity on the local, regional and global communities.

ACTION II.A2:
Strengthen UofL’s R1 standing by increasing scholarship support, fellowship opportunities, graduate degrees and postdoctoral training, and national academy memberships.

WHAT WILL SUCCESS LOOK LIKE?
1. University research, scholarship and creative activity ACC benchmarking study, SWOT and cost benefit analyses completed, and improvement plans implemented.

ACTION II.A3:
Strengthen research infrastructure to enable faculty and staff to secure external grants, foundation funding and contracts.

WHAT WILL SUCCESS LOOK LIKE?
1. Increased extramural research and fellowship funding drives the expansion of doctoral programs.

ACTION II.A4:
Prioritize historically underrepresented communities in the university’s scholarly contributions and research activities.

WHAT WILL SUCCESS LOOK LIKE?
1. University investment in specialized pre-award and post-award staff expands number of external grant proposals submitted and awarded each year.
A GREAT PLACE TO INVEST

STRATEGY I2:
Improve the ease and impact of partnering with the university by building and stewarding mutually beneficial relationships that support student success, faculty productivity and staff development.

ACTION I2.A1:
Provide existing and potential partners a “front door” as a single point of entry to easily access and engage the university’s knowledge, expertise and talents

WHAT WILL SUCCESS LOOK LIKE?
1. Virtual presence created with a state of the art, innovative talent database and interactive website that highlights faculty, staff and student expertise and drives opportunities for collaborations.
2. Expanded industry, government and foundation partnerships produce solutions to complex challenges by leveraging faculty, staff and student talent.

ACTION I2.A2:
Develop a comprehensive alumni engagement platform to integrate alumni and friends in the university’s shared interests, areas of expertise and Grand Challenges.

WHAT WILL SUCCESS LOOK LIKE?
1. Assessment of alumni expertise in and commitment to Grand Challenges research areas conducted and links between research projects and alumni are established in key research areas (e.g., challenges of urbanization, health equity/social determinants of health, advanced manufacturing, energy systems, civic engagement, environmental justice and sustainability, etc.).
2. Seamless relationship between Speed School and development officers to enable for more successful matches between faculty, staff, students, and alumni sponsors.
3. New Alumni Council website and “front door” portal improve ease, accessibility and user experience for alumni seeking engagement opportunities.
4. Alumni engagement increased by delivering high demand programming (Alumni Mentors, speaker series, class events, development and social opportunities, etc.).
5. Enhance the Dean’s alumni visibility.
6. Updated and Living alumni database.
7. Speed School repository of alumni engagement tracking.
A GREAT PLACE TO INVEST

STRATEGY I2:
Improve the ease and impact of partnering with the University by building and stewarding mutually beneficial relationships that support student success, faculty productivity and staff development.

ACTION I2.A3:
Develop value added partnerships with business and industry partners.

WHAT WILL SUCCESS LOOK LIKE?
1. Business and industry partnerships increase annually and expand in scope of activities and engagements.

ACTION I2.A4:
Improve student career readiness and outcomes by developing a comprehensive P 20 engagement platform, giving special attention to historically underrepresented and STEM+H communities.

WHAT WILL SUCCESS LOOK LIKE?
1. K-12 pipeline initiatives focusing on historically underrepresented communities and first-generation college students expanded.
2. Increased scholarship funding supports the recruitment, retention, completion and co-op of the University’s graduates.
A GREAT PLACE TO INVEST

STRATEGY I3: Create social, cultural, and learning opportunities that bring people to campus or take the campus to people (virtual and external partnerships) that improve quality of life by leveraging faculty, staff and student expertise and talent.

ACTION I3.A1:

Bringing people to campus: Expand programs and events designed to appeal to large, diverse audiences in order to bring more people to campus (e.g., lectures, seminars, conferences, tours, live demonstrations, trainings, student recruitment, alumni events, student presentations, career fairs, advisory boards, etc.)

WHAT WILL SUCCESS LOOK LIKE?

1. Large, diverse audiences attend campus programming, strengthening ties to the Speed community.
2. Alumni, donors, students, parents, along with industry and community members are engaged and involved through organized events.

ACTION I3.A2:

Bringing campus to people: Increase number of programmatic offerings and of campus spaces which foster local and global community engagement with the university.

WHAT WILL SUCCESS LOOK LIKE?

1. Increased engagement with underrepresented communities (e.g., west Louisville, south Louisville, and immigrant communities) that improves the quality of life for residents.
2. Increased local and global community engagement with the University.
A GREAT PLACE TO INVEST

STRATEGY I3: Create social, cultural, and learning opportunities that bring people to campus or take the campus to people (virtual and external partnerships) that improve quality of life by leveraging faculty, staff and student expertise and talent.

ACTION I3.A3:
Marketing and promotion: Improve the University’s local and global marketing and communications and digital presence to increase access to knowledge and engagement.

WHAT WILL SUCCESS LOOK LIKE?
1. Increased social media presence.
2. Continue improving Speed Schools website and increase website engagement.
**STRATEGIC GOAL:**
The University of Louisville is a great place in which to INVEST because of its demonstrated and potential impact on individual and community health and the economic, social and cultural health and well-being of Louisville, the commonwealth and beyond. We accomplish this through innovative teaching, research, scholarship and creative activity, principled leadership, responsible stewardship and engaged partnerships.

### METRIC DEFINITIONS 2019 BASELINE 2023 TARGET

<table>
<thead>
<tr>
<th>Metric</th>
<th>Definition</th>
<th>2019 Baseline</th>
<th>2023 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Research Dollars (FY)</strong></td>
<td>Annual research expenditures</td>
<td>$12,992,843.00</td>
<td>$15,400,000.00</td>
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<tr>
<td></td>
<td>Annual research awards</td>
<td>$11,504,694.00</td>
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<tr>
<td><strong>Scholarly Activity (CY)</strong></td>
<td># Journal Publications</td>
<td>254</td>
<td>296</td>
</tr>
<tr>
<td></td>
<td>Patents Awards</td>
<td>16</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td># Scholarly and creative works published/presented/performed in local, regional, national and international premier venues</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td><strong>Research Active Personnel (AY, CY)</strong></td>
<td># Doctoral and professional degrees awarded in STEM+H fields (AY)</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td># Doctoral and professional degrees awarded in humanities, social science and other fields (e.g. business, education, social work, law)</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td># Research staff with doctoral and/or professional degrees (CY)</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td><strong>Grand Challenges (FY, AY)</strong></td>
<td>Total expenditures sponsored research dollars (vs. overall) (FY)</td>
<td>$12.99 million</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td># of URM students participating in research (AY)</td>
<td>45</td>
<td>*</td>
</tr>
</tbody>
</table>

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Some of the data corresponds to the Academic Year (AY), which runs from the beginning of the fall semester through the end of the summer semester. The 2019 baseline corresponds to AY2019, which runs from Fall 2018 through Summer 2019. The 2023 target corresponds to AY2023, which runs from Fall 2022 through Summer 2023.

Some of the data corresponds to the Calendar Year (CY), which runs from January 1 through December 31. The 2019 baseline corresponds to CY2019, which runs from 1/1/2019 through 12/31/2019. The 2023 target corresponds to CY2023, which runs from 1/1/2023 through 12/31/2023.
# STRATEGIC GOAL:
The University of Louisville is a great place in which to INVEST because of its demonstrated and potential impact on individual and community health and the economic, social and cultural health and well-being of Louisville, the commonwealth and beyond. We accomplish this through innovative teaching, research, scholarship and creative activity, principled leadership, responsible stewardship and engaged partnerships.

<table>
<thead>
<tr>
<th>METRIC</th>
<th>DEFINITION</th>
<th>2019 BASELINE</th>
<th>2023 TARGET</th>
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<tbody>
<tr>
<td>Strategy I1: Increase productivity and innovation in research, scholarship and creative activities addressing the Grand Challenges to bolster our prominence among Carnegie-classified Research 1 universities.</td>
<td>Programming for Community (AY)</td>
<td>On Campus</td>
<td>*</td>
</tr>
<tr>
<td># of Events</td>
<td>Overall Satisfaction</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Off Campus</td>
<td># of Events</td>
<td>Overall Satisfaction</td>
<td></td>
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<tr>
<td>Donor Engagement (FY)</td>
<td>Amount of Annual Donations</td>
<td>$19,990,495.10</td>
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<tr>
<td>Academic Gifts</td>
<td>$16,936,582.91</td>
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<tr>
<td>Athletic Gifts (from Speed)</td>
<td>$3,053,912.19</td>
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<tr>
<td>% of alumni giving annually to the university</td>
<td>5.30%</td>
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<tr>
<td># of donors</td>
<td>1,293</td>
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<tr>
<td>Speed alumni of record</td>
<td>12,238</td>
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</tr>
<tr>
<td># Speed alumni FY19</td>
<td>639</td>
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</tr>
<tr>
<td>Graduate Student Support (AY)</td>
<td># of University fellowships</td>
<td>22</td>
<td>24</td>
</tr>
<tr>
<td># of Graduate Assistantships</td>
<td>107</td>
<td>144</td>
<td></td>
</tr>
</tbody>
</table>

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NEXT STEPS
The goals, strategies and actions outlined in this document began in January 2020. Existing administrators and groups are primarily responsible for making this happen.

Implementation
Implementation of the goals, strategies and actions outlined in this document has already commenced. Existing Speed School administrators and personnel will be responsible for the various aspects of the Strategic plan.

Grand Challenges
UofL has determined three key areas in which the university can significantly impact the economic and societal well being of the Louisville community, Kentucky and beyond (see https://louisville.edu/strategic-plan/grand-challenges-subcommittee).

They are:
1. Empowering Our Communities
2. Advancing Our Health
3. Engineering Our Future Economy

These three areas tie closely with much of the research performed by Speed School faculty, research staff, and students. The Office of the Associate Dean for Research and Graduate Studies will report this progress annually.

Cardinal Principles
The Cardinal Principles must be operationalized at Speed School. The Dean is responsible for ensuring that annually they are discussed at one of the AP&P (Administrative Policy & Procedures) meetings, which is attended by both faculty and staff leaders. Ideas to better put these principles into practice will be developed and assigned to the appropriate faculty and staff.

Assessing, Scaling and Planning Again
We consider this strategic plan a living document and will continually test and review the strategies set forth in it. The key is agility and boldness, which will allow us to determine where we need to revise our actions and priorities, admit our mistakes and make corrections, and continue to keep moving. Periodic updates to the Speed School community will ensure that we are maintaining our momentum in implementing change.

Throughout its history, Speed School has been an institution of change. More importantly, it has been an institution of substance and engagement with its community.

Following this plan, Speed School will continue to build on that legacy and further grow as a GREAT PLACE TO LEARN, to WORK, and in which to INVEST.