

Expanded Resources for Atypical Learners

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Executive Summary

Improved experiences and outcomes for students who fall under the label “Atypical Learner”

We call for an initiative to improve the experience of students who might self-identify or be identified as atypical learners. These students may have physical disabilities, be neurodivergent, or fall under the categories of gifted and talented. These students, particularly those with disabilities that make learning difficult in a traditional college setting, have lower graduation rates and report dissatisfaction with their experiences at Penn State.

Expansion of SDR including addition of division in Student Affairs and proposed Universal Learning Center

We are suggesting an expansion of the Student Disability Resources (SDR) Office with the aim of providing more resources to more of the student body outside of the standard Americans with Disabilities Act (ADA) and Rehabilitation Act accommodation model. Much of these resources are in the area of community connection and outreach with the goal of creating social support for atypical learners who are at a higher risk of being isolated and lack such supports facilitated for other marginalized students on campus. The presence of a disability office in Student Affairs makes it possible for these support programs to receive funding through student fees while creating a Universal Learning Center provides much-needed resources to the entire Penn State Community while decreasing stigma associated with disability.

Outreach and Engagement with Gifted and Talented Students in the Community

We suggest further development of programs like the one at Penn State Fayette Campus that offers opportunities for university-level learning to Gifted and Talented High Schoolers in

Penn State Campus Communities. This would provide important opportunities for outreach and connection with potential Penn State Students while offering academic enrichment to students who may be underserved by the resources available at their high school.

Introduction

Atypical learners are underserved in many parts of the educational system. We were drawn to address this by our proximity to this issue and a desire to support our peers in creating a more equitable campus community where all students' needs are met. Some of us have experienced being considered an atypical learner; others have friends or family who have struggled with their education due to neurodivergence or disability. We saw how Penn State had recently completed several projects to serve marginalized communities on campus better and was preparing to embark on more. Curiosity about the supports for atypical learners on campus brought us to realize that other than providing federally mandated accommodations, Penn State had not shown the same initiative in supporting the SDR Office. We wanted to explore how this could be done and, after engaging with both students and SDR, saw a clear and present desire for expansion of SDR that we want to help meet.

United Nations Sustainability Goals

Through the expansion of SDR, we hope to target two main United Nations sustainability goals by completion. The target goals address the need for more equity for students with disabilities in education. After reaching these standards, students with disabilities at Penn State will have access to a post-secondary level of education equal to their peers without disabilities. These students will also be prepared to enter the workforce with the same capabilities as any student not requiring support from SDR.

4) Quality Education

Within our plan to expand SDR to encompass students who do not traditionally qualify under American Disabilities Act, we hope to extend the opportunity for quality educational experiences to students of all backgrounds. Parallel to this plan, we hope that by creating more activities, a safe space on campus, and programming for high school students, the reach of SDR will broaden so that geographic or financial factors do not limit students. We aim to meet the following targets:

- 1) Target 4.3: “By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university”
- 2) Target 4.a.: “Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all”

10) Reduced Inequalities

By improving awareness of the services available at SDR and the Universal Learning Center, this policy will diminish the unequal access to these resources. With the expansion of SDR to include a Division of Community branch that is not housed under Educational

Equity, students who could not otherwise afford or qualify for services will now have the opportunity to seek the supports they need. In essence, this policy aims to reduce inequalities by creating new and equally effective paths to receiving support.

- 1) Target 10.2.: “By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status”

Background

Methodology

In creating this policy, we used literature and data to ensure we were meeting the needs of students with disabilities at Penn State. We gathered data regarding the prevalence of disabilities on college campuses from the United States Department of Education. We also reviewed qualitative research completed by Dr. James Herbert and colleagues on the experience of Penn State students with disabilities. We spoke to Dr. Leah Zimmerman, the director of SDR, to (1) learn about her current plans for SDR, (2) determine limitations to SDR due to its position under educational equity, and (3) understand how our policy could parallel her goals. We also contacted Brian Patchcoski, the director of the Center for Sexual and Gender Diversity, to understand how other centers were created on campus.

Disabilities in Education

The National Center for Education Statistics (NCES), a subset of the United States Department of Education reported that during the 2015-2016 school year, 19.4% of students had a disability (NCES, 2019). However, the resources and services available to students are not equal. Between the school years of 1996 to 2006, only 66.5% of students identified as having a disability by the SDR office graduated. The 66.5% of students who did graduate took an average of 10.1 semesters to graduate, or about five school

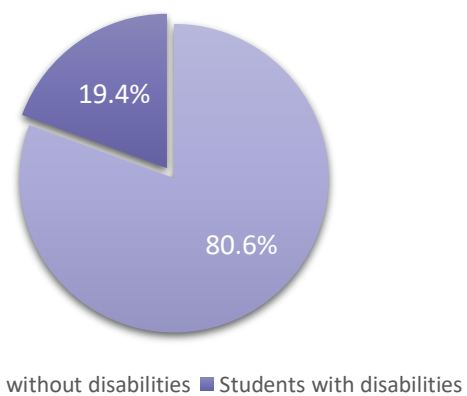


Figure 1. Percent of students with and without disabilities enrolled in undergraduate programs during the 2015-2016 school year. Adapted from data provided by NCES (National Center for Education Statistics, 2019).

years During that same time period, the overall student graduation rate was 86.7% (Herbert et. al., 2014). Researchers did not specify if this graduation rate was in the period of five school years, which was the average length of time it took a student with disabilities to graduate. To compare, the entering class of students from 2010 had a graduation rate of 83.4% after five years (“Retention and Graduation,” n.d.). In both scenarios the difference of students graduating with disabilities was nearly 20 percentage points less than the proportion of students graduating without disabilities.

Figure 2 and Figure 5 (in Appendix I) highlight the proportion of students with various disabilities recognized in educational settings. 33% of students, ages 3-21, in 2018 had a specific learning disability such as dyslexia or other condition effecting cognitive function. Other disabilities with high prevalence in students included speech or language impairments and other health impairments. While these numbers do not suggest that Penn State’s enrollment reflects

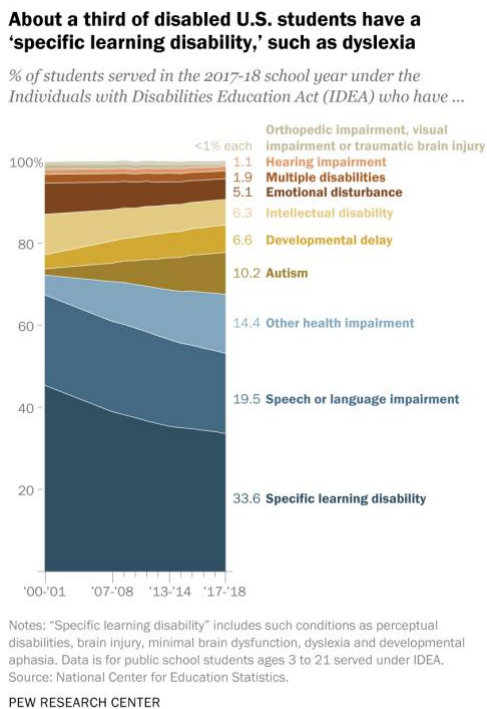


Fig. 2. Percentage of students, ages 3-21, with disabilities during the 2017-2018 school year provided by NCES.

this, we can conclude that there is not one particular disability that should be prioritized over others.

Because of that, we determined that the best approach for Penn State would be to adopt the Universal Design for Instruction, which is meant to employ learning and educational strategies that are beneficial to students of a multitude of learning styles.

The work from Dr. Herbert suggests that students were happy with the services provided by SDR currently. Penn State appears to offer the same

services and accommodations typically provided at four-year public institutions, as shown in Table 7 in the appendix. However, only 52% of those institutions provide a disability resources handbook to students. 50% of four-year public institutions made tutors accessible to students to help them with their coursework. And 37% of these institutions provided career services specially targeted for students with disabilities. Not only did students comment on the lack of academic support and information for students with disabilities, but there is a clear need based on the small proportion of universities comparable to Penn State offering these services.

Another recent study conducted at Penn State expressed a need for more services, available through and advertised by SDR. For example, students wished to see more information about CAPS. Students also critiqued the current tutoring provided by Penn State because tutors were not trained to work with students with learning differences. Of the resources available to students, some did not know how or where to access them, while others did not know that these resources existed. Students also requested more knowledgeable staff, who had a particular disability they specialized in. Ultimately, students felt that SDR needed to be expanded to have more staff, more resources, and more availability to students (Herbert et. al., 2020).

Interview with Brian Patchcoski

We interviewed Brian Patchcoski because of his experience reimagining a student resources office on campus. His utilization of modern techniques, such as social media, to advertise to and connect with students, we felt could be a model for how SDR could address the criticism about its lack of engagement with students. Our interview with Brian Patchcoski gave us more insight into the process by which centers are created and expanded at Penn State. From his experience developing the Center for Sexual and Gender Diversity, he suggested that we rely on alumni and community interest in a SDR center to advocate for the creation of the Division of Community

and Universal Learning and Support Center. As shown by the research completed by Dr. Herbert and his colleagues, students have not only requested, but also provided recommendations for a future, expanded SDR center. Needless to say, there is community support for this project.

While an expanded SDR is quite an undertaking, it is also important for Penn State to meet its legal requirements under the reformed American Disabilities Act. In order to do so, Patchcoski proposed the separation of SDR into two parts: part one falls under the Office of Educational Equity and fulfills the requirement mandated by law; whereas part two falls under the Office of Student Affairs and has the expanded supports, services and resources that we are offering in our policy (B. Patchcoski, Personal Communication, March 31, 2021).

The Council for Advancement of Standards in Higher Education (CAS standards) released guidance on disability services at universities in 2014. The document suggested that staff advertise information about disability resources around campus including in student and faculty handbooks. However, of four-year public post-secondary institutions, only 52% had disability resources handbooks available to students. Only 58% of those same institutions gave faculty a handbook with information about how to support students with disabilities (Raue and Lewis, 2011). The CAS standards also recommended that institutions of higher education maintain programming, “consultation and training” on topics related to disabilities. The need for more programming is corroborated then by Dr. Herbert’s report which found that students requested more disability-related programming for the general population of Penn State. These standards also say that the disabilities services office is responsible for preserving strong relationships with other offices on campus, even suggesting that partnerships are formed between SDR and other offices on campus. Overall, the goal is to make sure that SDR is highly visible on campus, which

students reported in the study completed by Dr. Herbert that they did not feel there was much information available to students not formally recognized by SDR (Wells, 2015).

Interview with Dr. Leah Zimmerman

Dr. Zimmerman, the director of SDR, spoke of a strong need for more resources for their office due to the overwhelmingly high caseload of students. 5% of Penn State students, or around 2,300 undergraduates, utilize the services provided by SDR. Dr. Zimmerman predicts that the percentage of undergraduates who need resources is closer to 20%. As Dr. Herbert found, many students cannot acquire support from SDR due to the financial strain, time commitment, and complexity of the process (Herbert et al., 2014). Simultaneously, SDR currently has a disability counselor to student ratio of 1:500. Students have felt the impact of the large caseloads: many commented on the need for more staff to accommodate every individual's unique needs. Other students felt that their relationship with their disability counselor was hindered due to the lack of consistent correspondence (Herbert et al., 2020).

There has been forward progression: SDR has taken over offices in Boucke building, previously home to the Center for Sexual and Gender Diversity. Dr. Zimmerman plans to adopt a Universal Physical Design because Boucke building currently lacks essential accessibility features. This aligns with comments from students who felt that various locations around campus were not accessible to students with mobility impairments. Dr. Zimmerman also intends to continue expanding the programming available and establishing more relationships with other services around campus, such as Career Services, CAPS, or Circle K (L. Zimmerman, Personal Communication, April 7, 2021).

Disability Services at Other Big Ten Universities

At first glance, Ohio State University and Rutgers University both give a stand-alone website to their disability service offices. This differs from Penn State, which has just one page on the Educational Equity website dedicated to SDR. Rutgers Office of Disability Services has easy to access links on its homepage as well as a live chat feature to immediately connect with an

employee at their offices. A tab labeled “Resources”

gives links to other services

around campus accompanied

other valuable resources such

as a classroom checker that

gives students a 360-degree

view of classrooms on

campus to determine whether or not it is accessible to them.

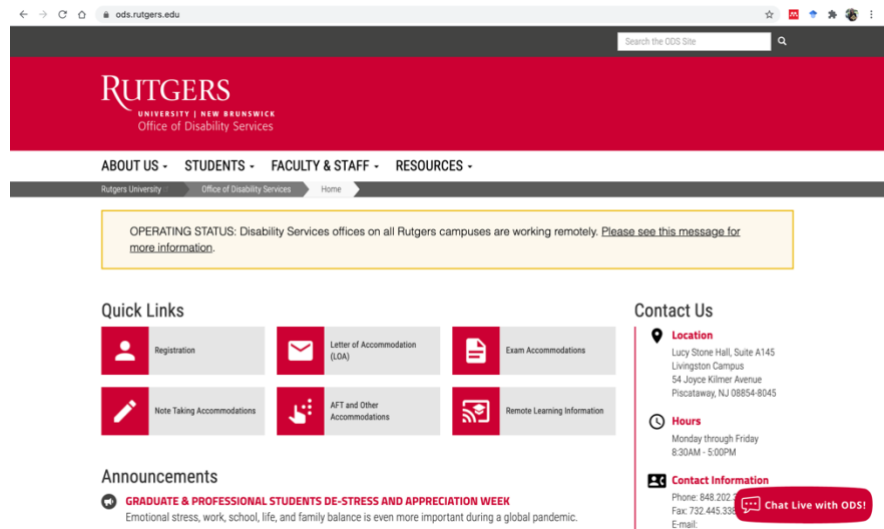


Fig. 3. Image taken from Rutgers University Office of Disability Services website <https://ods.rutgers.edu/>

The Ohio State University Disability Services website also has a modern feel with colorful images and graphics on its homepage. A third of its first page includes directions to access the on-campus offices, something that Penn State SDR does not have on its webpage. Students can easily see what services are offered by the disability office at Ohio State, and they can keep updated with the Disability Services Twitter account found at the bottom of the first page. For faculty members, Disability Services provides a lengthy page of links to information on the Universal Design for Learning, accessibility checkers for assignments, how to be inclusive to students with various disabilities, and different practices faculty can use in the classroom.

Improved Resources and Outcomes

Penn State wants to serve its atypical learners, and those students have been calling for more support from the University. Improving satisfaction with and connection within SDR is the first step to improving student outcomes. Dr. Zimmerman was quick to point out that students' academic success is not independent of their social wellbeing. Whether or not atypical learners feel supported plays a considerable role in whether they reach their full potential. The number of students currently receiving accommodations through SDR is below the anticipated need. The University should meet 50% of student need for accommodation by 2025 and 95% by 2035.

Out of those students who do receive accommodations, they take longer than the average Penn State student to graduate, if they do at all. The University should improve graduation rates among those identified by SDR from 66.5% to 70% by 2026 and meet student body-wide graduation rates and timeframes by 2040. This will also boost Penn State's larger graduation rate from where it is today, improving institution-wide metrics.

Visions for the Future

Student Disabilities Resources Expansion

We see a future where students at Penn State are given the resources they need to succeed regardless of disability status, learning style, or mental health. The first steps to achieve this is to ensure that the appropriate regulations and measures are being incorporated into the system of the Pennsylvania State University. Once the appropriate steps and measures have been incorporated and have demonstrated success, higher goals may be set, and programs may be expanded to achieve them. Creating an environment that embraces all the needs necessary for the diverse atypical learner student body will also inherently incorporate the needs of the whole student body at Penn State. In order to achieve first steps, SDR should take full advantage of the

space in Boucke, making it as accessible as possible to grow and develop the office. Through fundraising, discussion with donors, and the implementation of a new student fee our goal is to build a new building on campus that houses the Universal Learning Center. This space will encourage neurodivergent learners to take advantage of the opportunities provided by a facility that is dedicated to their unique needs and will enrich their Penn State learning experience.

SDR Office Addition and Expansion

Overview

To successfully enact a policy promoting the development of resources and opportunities for atypical learners, an expansion of SDR must be pursued. This redesigned office will be structured in a more accessible way which openly advertises its services for students and encourages anyone to reach out. SDR will act as a hub for all neurodivergent students who are struggling emotionally, academically, and socially who cannot be adequately assisted by the available resources which were not designed with them in mind. SDR must be redesigned to offer increased opportunities for neurodivergent students, such as tutoring, study planning, mental health assistance, and overall support. This expansion will also include the addition of a new division of SDR in Student Affairs, as well as a renovation of the current Boucke space which has already been set in motion by the current department. Ultimately, SDR will be housed in an entirely new building: The Universal Learning Center.

The current Executive Director of SDR, Dr. Leah Zimmerman, is in support of this goal but is working against a culture that has encouraged atypical learners to assimilate. Dr. Zimmerman is working within the constraints of a system that favors the accommodation model

only and does not interact with the student body at large, despite being the only available resource center designated for students with disabilities.

Penn State's SDR Office, like at many other universities, is currently housed solely under The Office of the Vice Provost for Educational Equity. The rationale for this being that the Office of Educational Equity is uniquely focused on meeting federal guidelines regarding students and faculty who are part of protected class, those who qualify for protection from discrimination under federal acts like Title VII, Title IX, and the Rehabilitation Act of 1973. In keeping with these guidelines, SDR must provide reasonable accommodations, defined as "modifications or adjustments to the tasks, environment or to the way things are usually done that enable individuals with disabilities to have an equal opportunity to participate in an academic program or a job" (American Psychological Association), to any student or faculty who qualifies. This designation, that SDR fall under the same purview as, say, The Office of Veterans Programs, which must follow similar guidelines, makes perfect sense. Not every university uses this rationale when placing their Disability Office under the direction of a specific Provost. Temple University of Philadelphia, Pennsylvania houses their Disability Offices within the "Division of Student Affairs," as do fellow Big 10 schools Indiana University and Ohio State University. Rutgers University, meanwhile, has a system wide "Access and Disabilities Resources Office" that oversees "Offices of Disabilities Services" at each of its campuses, those also falling individually under the control of "The Division of Diversity, Inclusion, and Community Engagement" at each campus. From the models of these other schools that share similar guidelines and goals with Penn State, it is evident that there are not any limits or definitive expectations for how resources for students with disabilities should be allocated among offices

and divisions. Each model has its drawbacks and advantages and must fit to function with and around the multitude of offices and divisions already present at a given institution.

Expanding SDR into Student Affairs would allow for a new mode of funding and would place the office in a better position to collaborate with other student advocacy groups on campus, increasing opportunities for student engagement. The current Penn State Student Disability Resource Office is already settled in under the Office of Educational Equity, and its goals and expectations to provide reasonable accommodation align with that office. Student Affairs houses Counseling & Psychological Services, the Center for Sexual and Gender Diversity, and the Paul Robeson Cultural Center, organizations that were used as models for the creation of the Universal Learning Center. As such, expanding SDR into Student Affairs is a logical step to support increased responsibility. However, it may not be reasonable to suggest a complete reshuffling of the system simply to provide a new meager source of funding, and reasonable accommodations must continue to be met. Creating an entirely separate center or office has the potential to produce crossed wires and bureaucratic confusion, not to mention make the process of finding support on campus that much more complicated for students who may struggle with mobility, organization, or information processing. We propose the creation of a Division of Community within the SDR office that is not under The Office of Educational Equity, but under Student Affairs. This Division, obtaining funding through alumni donations and a new student fee, would provide additional programming to atypical learners to support their social and emotional needs, as well as holding space for targeted academic work and tutoring.

To implement this policy as faithfully as possible for atypical learners, a new method of engaging with students is necessary. This proposal recommends using the Universal Design for

Learning (UDL) as the foundation for all programs in which teaching/learning are the focus. UDL is a teaching style developed by educators, learning scientists, literacy experts, and policy analysts to engage with students on the bases of Engagement, Representation, and Action & Expression (CAST, 2018). Each of these principles were created from existing research in the fields of neuroscience and cognitive psychology, drawing on affective, recognition, and strategic networks of the brain. The principle of Engagement is vital as it first cultivates interest in material and keeps students motivated to learn as they work through material. It is developed through initial excitement with the material and maintained through the creation of individual strategies. The principle of Representation involves the comprehension of material, developed through accessible interaction with material in a clear language presented multiple ways. Action & Expression provides guidelines for creating assessments that are accessible to all students, regardless of physical or mental ability (CAST 2018). UDL has been shown to have high levels of satisfaction and learning outcomes in both neurodivergent and neurotypical students, though it is designed with neurodiversity in mind (Kortering et al., 2015; Katz, 2014; *Neurodiversity: What You Need to Know*, 2019)

Before the lengthy fundraising and construction of the Universal Learning Center, we propose several expansions to SDR which can be conducted within its existing online and in-person framework. First, the Educational Equity website which contains SDR must be modernized and updated with more current resources. In terms of appearance, the site must be streamlined in a manner that is consistent with the Penn State online presence to demonstrate that the needs to neurodivergent students will not be neglected. The inactive links under “Tutoring,” will be replaced with new links to Penn State Learning, where best practices will be updated to include the principles of UDL as well as links to a page providing a more in-depth outline of

UDL: an added tab will be included discussing the concept of neurodiversity in a manner which is both scientifically accurate and engaging to the reader. Through these relatively simple improvements, SDR can begin its progress towards greater visibility.

Included in the expansion of SDR, new tutoring options will become available. Of the tutoring options currently offered to students, they are not tailored to the unique needs of neurodivergent learners, nor are they housed in any central location, even online. Instead, students must navigate numerous websites in unreliable states to find tutors through various departments who may or may not be trained. This incohesive array of resources was created with atypical learners in mind, but the tutoring options offered through SDR will be. Tutors will be trained in UDL concepts, so they are able to apply these principles in their student interactions. This training can be conducted via the existing UDL workshop conducted by the Schreyer Institute for Teaching Excellence, and the guidelines for this style of teaching will be available for all tutors and tutees in the form of a pamphlet and large graphic in the tutoring space. Though this tutoring will be geared towards students who have not found success with the current options, it will be available for anyone who wishes to participate. We also propose that the UDL workshop become a required part of Professional Development programming for faculty as well, realizing that if information is presented accessibly in the classroom the demand for these tutors will be lower, reducing strain on the system.

Furthermore, while SDR does offer some information on study planning on their limited website, they do not offer any other way to adapt one's individual learning process to their unique course load. They currently offer a modest tip-sheet called The Big Four Study Tips which fails to incorporate diverse studying methods beyond what is traditionally recommended in the classroom. The expanded SDR will incorporate the lessons of Eberly College of Science's

Study Smarter Not Harder workshops, as well as components of UDL. The Study Smarter workshops will be advertised on the redesigned website under the pre-existing “Calendar of Events” tab. In terms of UDL, studying is often far more flexible than four broad categories. For instance, making a list of study goals, recognizing and utilizing one’s own strengths, and ranking priorities would all be excellent UDL-style strategies. An important aspect to remember is that neurodiversity inherently relies on a wide array of perspectives, and it is highly possible that each student will devise their own study strategies that work best for them. Assistive technologies, such as read-aloud, dictation, and mind-mapping software, will be listed as well.

In terms of mental health support, Counseling and Psychological Services (CAPS) offers extremely limited support. Currently, there are only two physicians, 11 psychologists, and 61 other personnel to assist a school comprised of 40,639 undergraduates, where over 8,000 are estimated to be neurodiverse. Few of these staff members specialize in neurodiversity, and there is no mention of the support they offer on the current SDR website. In fact, CAPS specifically notes their limited resources regarding one of the most common forms of neurodiversity: attention-deficit/hyperactivity disorder (ADHD). This proposal advocates for the addition of at least one counselor with training in neurodiversity, costing the university approximately \$66,000 (*Licensed Mental Health Counselor*).

As the foundation for the Universal Learning Center, the Center for Sexual and Gender Diversity, the Gender Equity Center, and the Paul Robeson Cultural Center will be used as framework for both building the center itself and creating a community at that center. With the new Division of Community under Student Affairs a Student Fee may be implemented to support the funding of this building, and the programs that will be moving into it. We believe that students at Penn State will be willing to pay this fee with the knowledge that it will go towards

space and programming for their classmates, as well as space and programming that will be available and open for their use as well. With the help of Penn State Alumni through the Alumni association we can also raise significant funds from those who may have benefited from more resources or who feel charitable towards the University’s cause. There are also numerous federal grants supporting initiatives to improve accessibility and student outcomes through initiatives such as IDEA Act that can also serve as sources of funds. Overall, we do not anticipate students will be responsible for financing much of this project.

In terms of the construction itself, it must be incorporated into the Penn State 25-year facilities master plan. As the plan stands now, it appears that there is little to no available space for an additional building. It

would be far more advantageous to instead use the existing Boucke façade and redesign the inside of the building instead using the Fenske Lab and Steidle Building remodels as references. During the renovation process, the employees and professors/teaching staff who

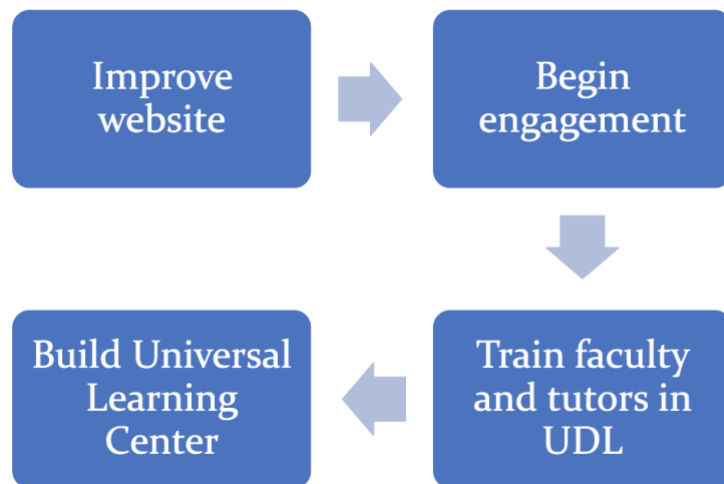


Fig. 4. Incremental steps towards the development of the Universal Learning Center

work in Boucke will need to be housed elsewhere. Office workers may be housed in vacant office spaces or conduct business remotely. Professors/teaching staff may be assigned to alternate classroom spaces. Ideally, individuals in the same department (SDR, Multicultural Resource Center, Office of Veterans Programs, etc.) will be relocated to the same space.

Following the accrual of adequate funding, the Universal Learning Center itself will be built. This location will house the SDR as well as the new resources developed under the Division of Community. The Gender Equity Center and Paul Robeson Cultural Center (PRCC) of Penn State offer similar services as the proposed Universal Learning Center (counseling, outreach, support, advocacy, etc.), so their budgets may be used as a general template for the cost to run the Center once it has been fully constructed. The Gender Equity center operates on \$169, 713 per year, and the PRCC operates on \$136, 772 per year (2019-20 Permanent Operating Budget...). As such, the Universal Learning Center may operate on approximately \$306, 485 per year. It should be noted that the cost of running the Center may be significantly less due to the employment of graduate students and volunteers to tutors, organizers, mentors, etc.

Gifted Students

Background

Gifted students can comprehend large quantities of challenging material faster than the average student. They are also better at retaining and remembering the information. The average high school curriculum is not challenging enough for advanced students. Despite their accelerated processing capacity, they often must learn at a pace that is suitable for the lowest common denominator to satisfy the needs of the other students in a classroom. It is very frustrating for a gifted student to listen to the same material being reviewed for days when they have understood it from the time of its introduction by the teacher. Their time could often be used in a way that is more appropriate for their skills and talents.

Gifted students cannot always relate to their peers academically because they operate at an accelerated level. They may struggle to find other students who can help them to solve the most difficult problems in class. Teamwork in these situations would be extremely beneficial so

that the student could be exposed to fresh perspectives and have more than their own thought patterns/processes to work with. Exposure to other individuals of their academic caliber would also help to push, challenge, and instill humility so that they can reach their highest potential.

Advanced students do not need to study seriously in high school, so great study skills are not developed. If they are aware of this, it causes stress about how they will react to not understanding a concept for the first time in college, when the problems will be exceptionally challenging. People learn how to deal with adversity and problems by repeatedly experiencing them, failing, and eventually persevering through them. Schools need to expose gifted students to this life skill by providing them with opportunities to grapple with hard material.

High schools are making a grave mistake by neglecting the needs of gifted students. Gifted students' time is not utilized well, they aren't challenged appropriately, there are few opportunities to connect with peers at their academic level, and they do not gain the experience of persevering through academic struggles. These deficiencies can seriously inhibit the potential of the affected students. Gifted students are deserving of more options, resources, and support than many public education systems currently deliver (Black).

Penn State's Role

Penn State can help to fill a gap in demand for resources specific to gifted students through the creation of an online class program for high school juniors and/or seniors. It would be similar in theory Penn State's Learning Edge Academic Program (LEAP), but it would take place virtually while students are still in high school. There are several ways that the logistics of this program could be implemented. It could begin on a relatively smaller scale, allowing gifted high school students to take approximately 7-10 credits through Penn State, with the potential to grow to higher credit limits over time- depending on the success of the program. One of the

stipulations of the program is that students must matriculate to Penn State after enrolling in this early college program. This program would likely be provided at a discounted rate through tuition adjustments and/or scholarships. See the Proof of Concept: Early College Scholarship Program at Fayette for details and options regarding the funding of this program.

Benefits for Stakeholders: Penn State University, Students, and Parents

An early college program for gifted high school students would make Penn State more attractive to highly motivated, intelligent learners and would lead to an increase in the admissions rate of these students. This would further improve the caliber of the students enrolling at Penn State. Also, Penn State would gain additional tuition money from high school students who may have chosen to take college classes at their local community college (instead of Penn State) before the existence of this program. Also, if these students enrolled into large, virtual classes with automated grading, they would hardly be any additional work or burden to the university.

Gifted high school students would be able to simultaneously finish high school requirements while also gaining college credits. They would be able to smoothly and directly transfer and apply the Penn State credits that they earned in high school toward their undergraduate degree. Credits from other institutions and AP examinations do not transfer over to Penn State as easily as its own classes do. Additionally, these gifted students would be challenged at their appropriate academic level through college classes that could compensate for the deficiencies in standard high school curriculums. Penn State can provide these students with a higher quality, more flexible education.

The parents of the gifted students are likely to strongly support this program. They will be incentivized by the tuition adjustments and/or potential scholarships offered through this program.

Proof of Concept: Early College Scholarship Program at Fayette

The program that we are suggesting for University Park is modeled very similarly after the Early College Scholarship Program that has been implemented at Penn State Fayette. Through this program, students can take 7-10 college credits for \$50 or less. This is possible through a 50% tuition adjustment and approximately \$1,875-\$2,675 in scholarships provided by the Early College Scholarship program. Financial models for the various versions of this program can be found directly below (Early):

Spring 2021 Option - Total of 10 Credits	
	Tuition*
Spring 2021 3-credit CAS100 course	\$817.50
Additional 6 credits completed throughout Summer 2021, Fall 2021 or Spring 2022	\$1,635.00
Spring 2022 1-credit seminar	\$272.50
Upfront Cost for Program (10 college credits)**	\$2,725.00
Early College Scholarship***	\$2,675.00
<i>Cost to student when scholarship is recuperated at time of full-time enrollment Penn State Fayette</i>	\$50.00

Option I: High School Senior - Total of 7 Credits	
	Tuition*
Fall 2021 3-credit CAS100 course	\$817.50
Spring 2020 3-credit course and 1-credit seminar	\$1,090.00
Upfront Cost for Program (7 college credits)**	\$1,907.50
Early College Scholarship***	\$1,875.00
<i>Cost to student when scholarship is recuperated at time of full-time enrollment to Penn State Fayette</i>	\$32.50

Option II: High School Junior - Total of 10 Credits	
	Tuition*
Fall 2021 3 credit CAS100 course	\$817.50
Additional 6 credits completed throughout Spring 2021, Summer 2021, Fall 2021 or Spring 2022	\$1,635.00
Spring 2022 1-credit seminar	\$272.50
Upfront Cost for Program (10 college credits)**	\$2,725.00
Early College Scholarship***	\$2,675.00
<i>Cost to student when scholarship is recuperated at time of full-time enrollment Penn State Fayette</i>	\$50.00

**Based on PA residency. Tuition is subject to change.*

***High school students receive 50% tuition adjustment for all classes completed while enrolled in the Early College Scholarship Program.*

****Early College Scholarship is received and applied to first-semester tuition bill upon full-time enrollment at Penn State Fayette.*

The Penn State Fayette campus has found great success in keeping the cost of this program's tuition under the price of an Advanced Placement (AP) exam. Although University Park may not be able to offer such significant discounts or scholarships, reducing the price to some degree will most likely be a critical piece in attracting these gifted students.

The program at Fayette is not specific for gifted students. But for University Park, initially targeting gifted students would provide a trial run to further prove the concept of this program before integrating other high school students in as well (Julian).

Conclusion

The main goal of the policy is to tackle the UN Sustainability Goals to increase Educational Equity and reduce inequalities. Through a series of interviews to Dr. Jim Herbert, Dr. Leah Zimmerman, and Dr. Brian Patchcoski, we found the current issues the University has with its students with disabilities and proposed a way to expand on the current Student Disabilities Resources. The vision for the future of the policy is to expand on the Universal Learning Center program and to create a space dedicated to the specific needs of the University's student body with disabilities. The Universal Learning center will be equipped with trained tutors with focus on different disabilities, an incorporation of CAPS, and the inclusive environment in which student can find the help that they need. Additionally, Penn State can create a resource that is specific for the needs of gifted students. It would be a virtual program like Penn State's Learning Edge Academic Program, but it would be available for students in high school. When the program is initially implemented, gifted high school students could complete approximately 7-10 credits through Penn State at a reduced price through tuition discounts and scholarships.

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We would like to thank Dr. Jim Herbert for providing us with lots of data and prior research while we curated this paper. He was instrumental in helping us develop a wealth of background information. We appreciate the time and effort he gave.

We are grateful to Dr. Leah Zimmerman for her support of our policy. She took the time to discuss with us the areas for improvement and of success for SDR. She also provided us with advice and support to make this policy as beneficial for students as possible.

We also thank Vice President for Diversity, Equity, and Inclusion, Brian Patchcoski for offering guidance based in his prior experience expanding the Penn State Center for Gender and Sexual Diversity. This wisdom was invaluable to us in anticipating barriers we might come across in proposing and enacting this policy.

We additionally thank Sean Miller, Senior Director of Development and Alumni Relations for Schreyer Honors College of Penn State for explaining the process by which a new building is approved and funded. His guidance was instrumental in understanding what must be accomplished for the Universal Learning Center to be built.

Special thanks to Dr. Dean Julian, the Director of Enrollment Management at Fayette's Admissions office. He has been instrumental in providing support and information for the Proof of Concept: Early College Scholarship Program at Fayette section of our policy paper. His

passion for the Early College Scholarship program is unmatched. Dr. Julian would certainly, and willingly, continue to be consulted if this program was expanded to University Park.

Recommended Sources

For more data on disability prevalence in higher education, we recommend the National Center for Education Statistics, which is run by the United States Department of Education:

<https://nces.ed.gov/>

For more information regarding the Universal Design for Learning, we recommend the UDL website designed by its creator, the Center for Applied Special Technology (CAST):

<https://udlguidelines.cast.org/>

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Appendix I

Tables and figures adapted from data

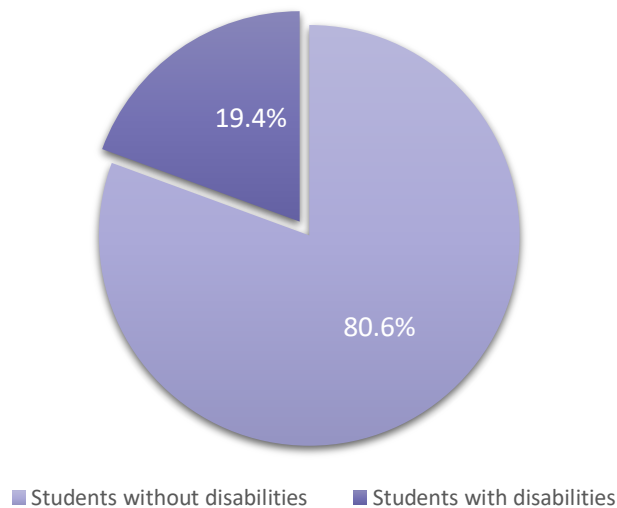


Figure 5. Percent of students with and without disabilities enrolled in undergraduate programs during the 2015-2016 school year. Adapted from data provided by NCES (National Center for Education Statistics, 2019).

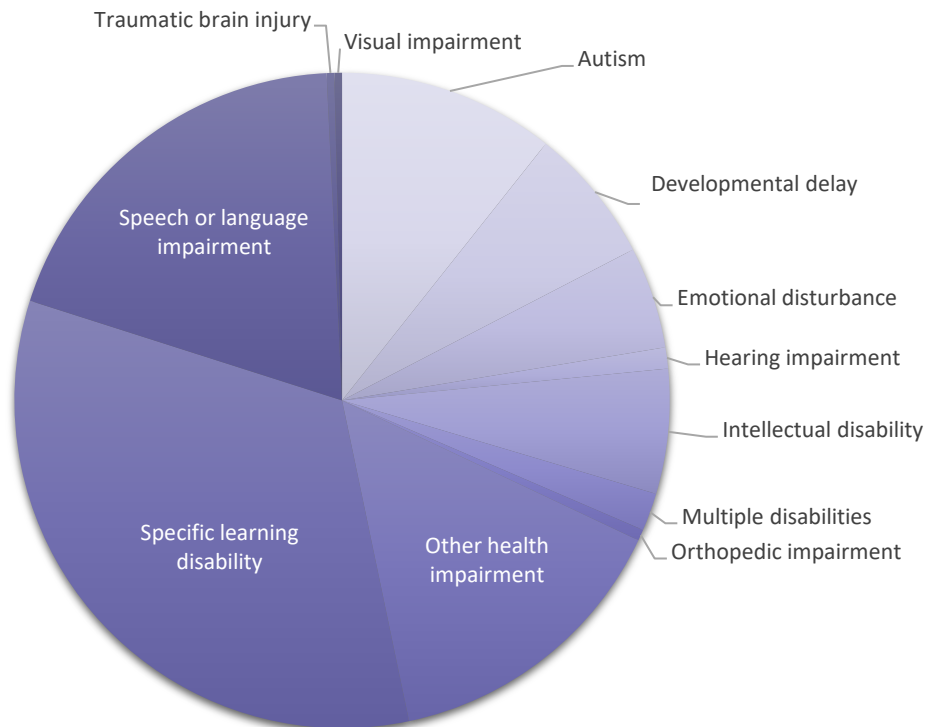


Figure 6. Percentage of students from 3 to 21 years old under the IDEA during the 2018-2019 school year. This figure was adapted from NCES (NCES, 2020). 33% of students had a specific

learning disability which includes perceptual disabilities, dyslexia, minimal brain dysfunction, and developmental aphasia. 19.3% of students had a speech or language impairment. 15% of students had other health impairments including heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes.

Table 7. Top 10 services and accommodations for students with disabilities ranked by percent of 4-year public post-secondary institutions providing them

Rank	Service or Accommodation	Percent of Institutions Providing the Service or Accommodation
1	Additional exam time	99%
2	Adaptive equipment and technology	97%
3	Classroom notetakers	92%
4	Alternative exam formats	89%
5	Audio textbooks/digitally recorded texts	88%
6	Faculty-provided class notes and assignments	79%
6	Readers	79%
8	Helping with learning strategies	76%
9	Physical adaptations to classrooms	74%
10	Large print/Braille materials	73%

This table has been adapted from (Raue and Lewis, 2011). The ranking was determined out of a total of 25 services and/or accommodations. The 10 greatest percentages of 4-year public post-secondary institutions providing a service or accommodation is shown here.

Table 8. Bottom 10 services and accommodations for students with disabilities ranked by percent of 4-year public post-secondary institutions providing them

Rank	Service or Accommodation	Percent of Institutions Providing the Service or Accommodation
16	Disability resource handbook	52%
17	Tutors to assist with ongoing coursework	50%
18	Real-time captioning	43%
19	Career or placement services targeted to SWD	37%
20	Paratransit for on-campus mobility	30%
21	Oral interpreters	28%
22	Other	21%
23	Disability benefits counseling	14%
24	Independent living skills training	7%
25	Personal attendants	4%

This table has been adapted from (Raue and Lewis, 2011). SWD is an abbreviation for students with disabilities. The ranking was determined out of a total 25 services and/or accommodations.

The 10 lowest percentages of 4-year public post-secondary institutions providing a service or accommodation is shown in this table.

Appendix II

Extended Literature Review

University Policies, Resources and Staff Practices: Impact of College Students with Disabilities

James T. Herbert, Wendy A. Coduti, and Allison Fleming

This study used a focus group setting to interview students registered with SDR. The participants in the study were from a wide range of backgrounds: 20 of the 26 participants were white, two were African American, three were multi-racial and one was an international student. The students were a majority female. The disabilities represented in the group were mental health, learning disabilities, attention disorders, visual impairments, physical health, Autism spectrum and hearing impairments.

Students were asked three questions by the researchers. The first prompt was “describe your college experience at [Penn State]”. The second question was “what services or persons, in particular, were beneficial to you?” And the third question was “what suggestions would you make to the university administrators to improve services?”

The focus group interviews were recorded using transcription. The authors of this article then read the transcripts independently and gathered what they felt the main ideas and themes were of the interviews. The themes the authors found most prevalent in the interview responses were 1) experiences with SDR, 2) faculty interactions, 3) accommodations, 4) awareness of university resources, 5) recommendations for improvement.

Under the theme of students’ experiences with SDR, most students felt that they had a positive experience with the staff and counselors. Other students remarked the challenges they faced trying to qualify for services, conflicts with staff members, feeling left out and unsupported when it came to accommodations. This was attributed to staff not knowing where or how to access resources around campus. Other students noted the rushed nature of interactions with

SDR counselors because of the large counselor to student ratio. Unlike an advisor or mentor, students claimed that they were unable to build a lasting relationship with their SDR counselor because they were not able to access them. Many students commented on the stigma and judgement they felt when entering the SDR offices. Some students recalled the struggles they or their friends faced in applying for services through SDR. Because of the rigorous eligibility process, students felt that providing the proper information was time-consuming, unaffordable and stressful.

With regards to faculty interactions, students felt that professors ran the gambit when it came to their acceptance and awareness of disability accommodations. Students whose disabilities were “invisible” from the outside, such as a mental health or pain condition, felt that professors were less willing to accommodate them. That said, other students raved about their professors’ patience and preparedness when it came to handling disabilities in the classroom.

Discussing accommodations, students gave mixed reviews. While students felt that the process of acquiring accommodations was stressful every semester, others felt that SDR counselors had good advice to help with accessibility in the classroom. After approval from SDR, students mentioned that some professors would deny them the accommodations they were requesting. In those events, students sometimes felt so discouraged that they never applied for the accommodations again, even in subsequent semesters. A lot of students commented on the stressful nature of applying for accommodations. They stated that while the process was repeated every semester, it never got any easier. Some students used physicians, family members and lawyers to facilitate the process for them.

Of the resources provided to the university, researchers noted that students tended to only name a few. Of the ones mentioned in the interviews, students were satisfied with the financial

supports from the state office of vocational rehabilitation, career advice from the career center, social media usage of colleges to connect with alumni, library services and academic advisors. Students were unhappy with the “architectural accessibility” for students with mobility impairments. Students were displeased with the training of tutors who were ill-prepared to work with students with disabilities. Others wanted a newer space on campus to feel more welcoming and comparable to other universities’ disability offices. Finally, students expressed frustration with the lack of communication with other centers on campus, especially Counseling and Psychological Services (CAPS). Ultimately, counselors for SDR were not equipped with enough information about other resources around campus to help students connect with other services.

Students emphasized the need for changes from the university under the theme of university recommendations. For example, students wanted any disability counselors to have formal training in disabilities while also maintaining more knowledge of specific majors. Some students suggested that Penn State could offer first-year seminars for students with disabilities. The class would teach students how to go about the eligibility process, how to advocate for oneself, what accommodations are available, how students can build better relationships with faculty and what resources exist at Penn State to help students be successful. Other students felt that SDR was inaccessible outside of traditional working hours. A suggestion was to create a place on campus where students with disabilities could congregate with others who shared their experiences. Many students noted disappointment with the current SDR website, as well. The interviews also brought to light a need for more programming and outreach to students. Beyond these recommendations, students wanted to see more information available for students and faculty without disabilities to eradicate the stigma about disabilities on the Penn State campus.

Appendix III

Interviews

Brian Patchcoski, Vice President of Diversity, Equity and Inclusion

Brian Patchcoski spoke of the culture at Penn State being one that must change in order to allow expansions of student services, such as SDR. That said, Patchcoski noted the importance of keeping accommodations tied to SDR because of the federal requirements under ADA.

Regarding the relationship between SDR and the Center for Sexual and Gender Diversity is mainly that SDR recently took over the old offices in Boucke building after the larger space was built in the HUB. The expansion of into the HUB was something of interest to this policy. Patchcoski spoke about his experience with the process. He stated that fundraising began in 2008, however the project was not finished until 2019. The 8-year endeavor included finding alumni to donate large sums towards the cost as well as fundraising through other avenues. Patchcoski also noted that the Center for Sexual and Gender Diversity, which is housed under Student Affairs, used the Student Fee as another financial contribution to the project. Ultimately, students were refunded the money because the alumni donor was able to cover the costs of the project in its entirety. Patchcoski suggested that an investigation into pathways to partially pay for the SDR expansion with the Student Fee from Student Affairs.

Patchcoski remarked on some challenges he faced during the expansion. People commented that the name change to Center for Sexual and Gender Diversity was confusing. Others felt that the Paul Robeson Cultural Center was too reminiscent of the goals that the Center for Sexual and Gender Diversity was trying to achieve.

When determining what programming and resources to include in the new center we are proposing, Patchcoski encouraged us to use the Council for Advancement of Standards in Higher

Education (CAS Standards) as a guide. He also noted the importance of following the guide of community feedback via surveys, word-of-mouth, questionnaires, etc. Programming could include educational opportunities for undergraduates, graduate students and faculty members. Because the expansion of SDR is meant to decrease inequities and reach out those who might not otherwise receive the support they need, Patchcoski reminded us to focus the resources at the center on those who are most marginalized currently. Emphasizing our goal of increasing academic success and overall student engagement will be attractive to prospective students and their families when deciding between Penn State and other institutions of the same size. That is why it is important to keep the opinions of the students who will be using the center in mind when creating this policy

Leah Zimmerman, Director of SDR

In the interview with Leah Zimmerman, the director of SDR, we learned of the current progress occurring. Zimmerman shared that the large goal of SDR was still to provide services and accommodations to comply with the Rehabilitation Act of 1973 and the Americans With Disabilities Act. However, she recognized that retaining students with disabilities and ensuring that they eventually graduate goes beyond just the academic supports that are being offered right now. Inevitably, the goal of SDR now is to focus on both the academic and social ways to engage with students. Zimmerman notes that, at this point, she is hoping to see more student involvement in the expansion of SDR and the creation of new programming and activities on campus.

At this point, Zimmerman and the staff within SDR are serving 5% of the undergraduate student population, which equates to about 2,300 students. That being said, Zimmerman expects that around 20% of students need resources from the SDR offices but can't receive them for any

multitude of reasons. Despite the fact that so many students need the extra support and accommodations that SDR can provide, very few faculty members are familiar with teaching practices: just over 40% of faculty at Penn State are trained. Schreyer Honors College does provide Universal Design for Learning training for its faculty members, however. The need for additional aid from the Penn State community is clear as Zimmerman notes the current caseload of disability specialist counselors to students is 1:500.

Zimmerman has been transitioning the SDR offices into the space previously occupied by the Center for Sexual and Gender Diversity. To her, this feels like a natural progression and she would like to focus on renovating and improving the space in Boucke building. She expressed that there is currently a budget to renovate Boucke to embrace the Universal Physical Design because it is not, at this time, physically accessible. She is hoping that over time she can begin to motivate more faculty to adopt the Universal Design for Learning in their educational practices. Within the SDR offices, Zimmerman suggests using a work-study model with graduate students to help reduce costs.

She plans to develop a peer mentorship program to foster more peer-to-peer communication and connection within SDR. Zimmerman wants to initiate affinity groups within SDR as well as increasing the programming sponsored by SDR, such as cross-over events with Career Services, Counseling and Psychological Services, Acres of Spectrum, Her Clinic, and Circle K. An example of the success of the programming is the Attention Deficit Hyperactivity Disorder event that was held earlier in the semester. 10 students attended to learn more about how to stay organized for the rest of the semester.

Sean Miller, Senior Director of Development and Alumni Relations for Schreyer Honors College

In this brief interview, Mr. Miller addressed the process by which one may obtain funding for a new construction product following approval. Mr. Miller referenced Penn State's 25-year facilities master plan, which showed little room for expansion, instead proposing that a full renovation of the Boucke Building would be far more feasible and possibly cheaper. He mentioned that the Fenske Lab and Steidle Building would be excellent models for how much a project of this nature may cost, as they too were internally remodeled while keeping the exterior façade. Additionally, Mr. Miller noted that the 25-year timeline is not set in stone, and that the Universal Learner Center could be built much faster should the funds be readily available from motivated donors.