



Impact Spotlight
Report:

**SuccessConnects
Program
Evaluation**



Spotlight Report

SuccessConnects Program Impact Evaluation: An Initiative of the University of Michigan Diversity, Equity & Inclusion Strategic Plan (2016-2021)

Introduction to SuccessConnects

The SuccessConnects program, administered by the Office of Academic Multicultural Initiatives (OAMI) within the Office of Diversity, Equity and Inclusion, is an undergraduate student support program designed to assist University of Michigan (U-M) Ann Arbor students in their transition to college and support their social, personal and academic development. SuccessConnects (SC) was launched in fall 2016 as a centrally supported initiative within U-M’s Diversity, Equity and Inclusion Strategic Plan. The program focuses on holistic student support while offering numerous opportunities, including one-on-one coaching, tutoring, connection to campus resources, and academic enrichment and community building events, among other experiences. This program creates a supportive, inclusive community designed to support success at the University of Michigan. It includes first-generation college students, students from low socioeconomic and/or underrepresented backgrounds as well as participants of U-M’s partnership pipeline programs. Any undergraduate student at U-M who wishes to participate may join the SuccessConnects program at any time. This report focuses on examining the impact of the SuccessConnects program in three ways: understanding SuccessConnects student experiences, comparing SuccessConnects students to students with both similar and dissimilar backgrounds and investigating SuccessConnects graduation rates and plans after graduation among early cohorts.

SuccessConnects Scholar Experiences

Students who participate in the SuccessConnects program are provided with many opportunities to promote their success at U-M. These experiences include one-on-one coaching, tutoring, academic enrichment workshops, community building activities, study tables and email newsletters. The SuccessConnects program consists of a staged curriculum, which begins with first year students being paired with staff coaches, with whom they meet regularly. These coaches help students with their transition to college, including developing important study and time management skills, creating an academic plan, learning about utilizing campus resources and developing a sense of community within SuccessConnects and OAMI. Second year students are paired with undergraduate peer mentors, with whom they typically share similar academic and major interests, and third and fourth year students are paired with graduate student mentors with similar advanced degree interests (e.g., medical school, law school, art and design, liberal arts disciplines, etc). As such, this evaluation of the SuccessConnects program examines students across three cohorts (who entered U-M in fall 2018, fall 2019, and fall 2020) but combines them, regardless of cohort/semester of matriculation, into groups representing academic year [i.e., first year at U-M (Year 1), second year at U-M (Year 2) and third year at U-M (Year 3) groups], to best represent the program’s structure and goals.¹

¹ This evaluation primarily uses data from fall 2018 to winter 2021 (unless otherwise stated). The total number of study participants (across all participation groups) in Year 1 is 3,779, with 2,149 Year 2 students and 877 Year 3 students.



To understand students' perceptions and experience of the program, two items from the SuccessConnects survey² were examined and analyzed - one question regarding students' rated satisfaction with the program and another open-ended question about students' perceived benefits of the SC program. Analysis findings are detailed below.

Overall Satisfaction with SuccessConnects

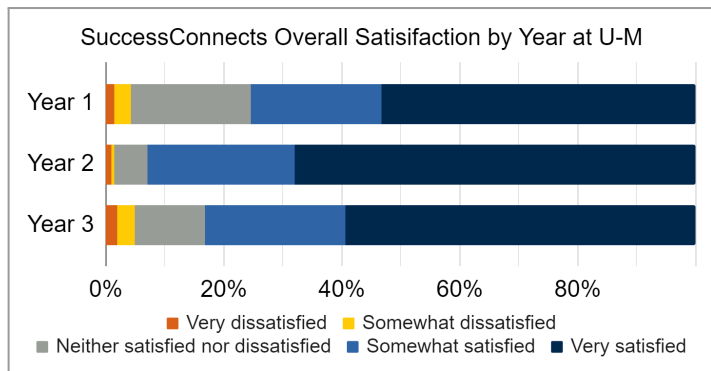
SuccessConnects scholars were asked to rate how satisfied they were overall with the SuccessConnects program, with response options ranging from 1 (very dissatisfied) to 5 (very satisfied). Scholars reported very high levels of satisfaction with the program. In all three group years, the mean satisfaction score was above 4, indicating a level of satisfaction somewhere between "somewhat satisfied" and "very satisfied" (see Figure 1).

Additionally, we see that in each year, the vast majority of students reported being "somewhat satisfied" or "very satisfied." In Year 1, 75.4% of students responded they were either somewhat satisfied or very satisfied, in Year 2, 93% of students responded they were either somewhat satisfied or very satisfied, and in Year 3, 83.2% of students responded with either somewhat satisfied or very satisfied (see Figure 2).

Figure 1. Overall Satisfaction with SuccessConnects



Figure 2. SC Overall Satisfaction by Year at U-M



Benefits of SuccessConnects (Open-Ended Responses)

Students' satisfaction and experiences with the SuccessConnects program was also captured through a question asking students to write-in responses as to how the program has been beneficial to them in

² Each fall, students new to the university as of that summer of fall term (freshmen and transfers) complete a "baseline" survey. Students are only asked to respond to this survey once - in the fall semester of their first year at U-M. Each winter, all students are invited to complete an annual survey. This includes all students who have at some point in their academic career been involved in SuccessConnects, as well as all Comparison and Traditional students (described in further detail in the SuccessConnects Scholar Comparisons section below), provided they are still enrolled as an undergraduate at U-M. Students are asked to respond to this survey every winter term they remain enrolled at U-M as an undergraduate. Any reference to the "SC survey" in this document refers to this set of annual surveys. From fall 2018 - winter 2020, response rates varied across years, ranging from 34.1% to 44.1%. Response rates in fall 2020 and winter 2021 were lower (12% and 7.9%, respectively) due to the impact of the university financial restrictions which limited non-essential expenditures, including survey incentives, as a response to the COVID-19 global pandemic.



the last year. Similar to their satisfaction ratings, student responses reflected their positive views of the program’s benefits.

Student write-in responses were thematically coded to illuminate and distinguish the types of experiences that students found most helpful. Several emergent themes were identified, including: general support/mentorship, community building or providing a support network, academic support (including career/goal planning) and awareness of and access to various campus resources. Table 1 illustrates the number (and percentage) of student responses across each theme by student year.

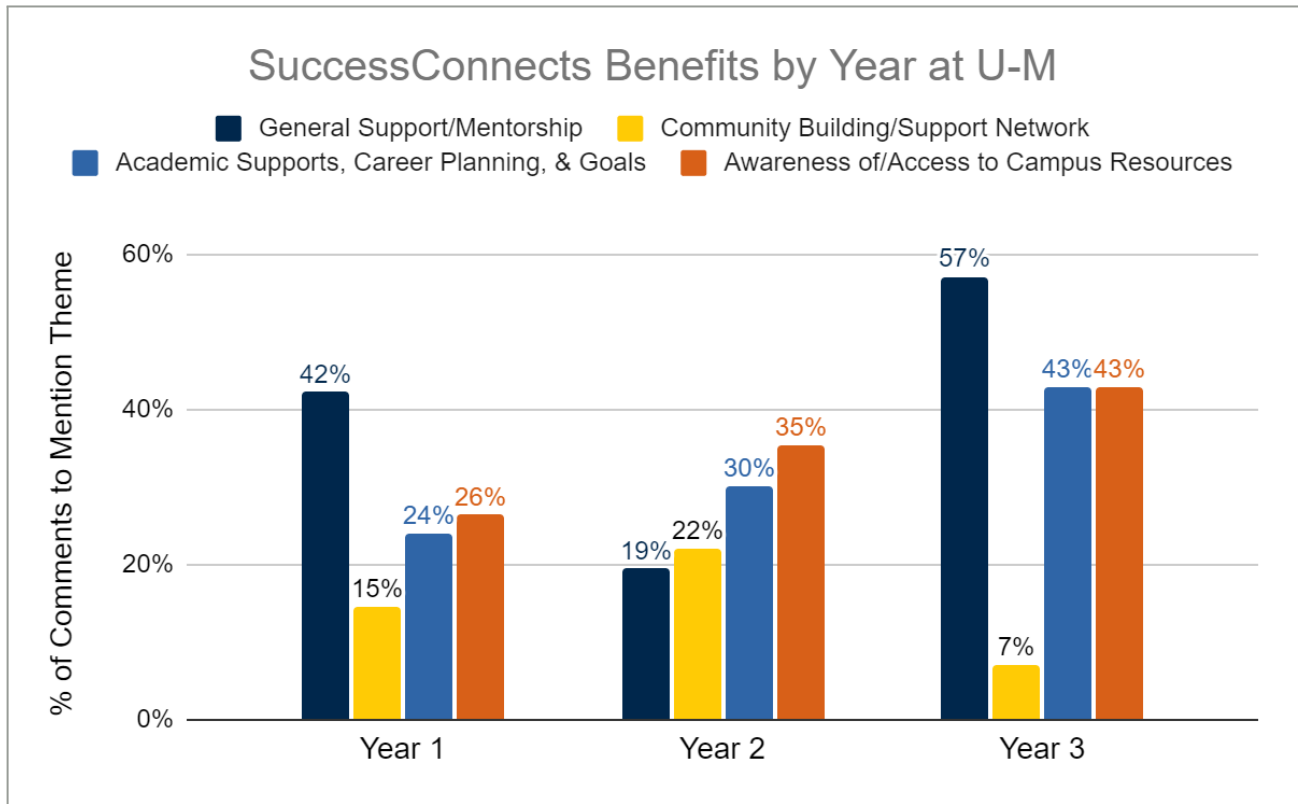
Table 1. Benefits of SuccessConnects by Year at U-M

SuccessConnects Benefits	Year 1		Year 2		Year 3	
General Support/Mentorship	128	42.2%	22	19.5%	8	57.1%
Community Building/Support Network	44	14.5%	25	22.1%	1	7.1%
Academic Supports, Career Planning, & Goals	73	24.1%	34	30.1%	6	42.9%
Awareness of/Access to Campus Resources	80	26.4%	40	35.4%	6	42.9%
Total Number of Responses	303		113		14	

Students in all years at U-M found the noted types of experiences beneficial; however, some year-based differences emerged. A higher percentage of students in their first year at U-M mentioned elements surrounding the mentor relationship than did students in their second year at U-M. More students in their second and third year mentioned academic support, including career planning, as well as awareness of campus resources, than did students in their first year. This pattern likely reflects students’ evolving needs as they navigate the University and progress further into their college career (see Figure 3).



Figure 3. Benefits of SuccessConnects by Year at U-M



Conclusions for Student Experiences with SuccessConnects

Overall, SuccessConnects students were very satisfied with the program, and they reported many important benefits from participating, including a space to belong. Numerous students mentioned finding friends through SuccessConnects events, and several credited SuccessConnects with helping them successfully navigate their transition to college. In addition, a substantial proportion of students reported the program helped them to take advantage of the various resources available at U-M. SuccessConnects students mentioned both the academic and psychosocial advantages of participating. These findings underscore a critical goal of the program – to provide students with holistic support to succeed in college – and further demonstrate the various ways the SuccessConnects program benefits students’ social, personal and academic development.

SuccessConnects Scholar Comparisons

In addition to understanding students’ experiences with the SuccessConnects program, analyses included comparisons of SuccessConnects scholars with two comparison groups to investigate the ways that SuccessConnects students were similar to and different from other U-M students with regard to both academic and psychosocial outcomes.



Methodology

Data Sources for Scholar Comparisons

The data used in these comparisons came from a variety of sources, including university-level data such as cumulative GPA from the U-M Data Warehouse and data from several SC surveys. Each annual survey was distributed near the end of the winter term to all currently enrolled undergraduate students who have ever been a part of SC, as well as any students who have been selected as one of two comparison groups. The annual survey asked SuccessConnects students about their experiences with the program, then asked all students about various elements of their college experience, including the frequency of U-M resource utilization, psychological experiences such as flourishing and imposter syndrome, and U-M campus climate outcomes, including their sense of belonging at U-M.

Comparison Group Sampling

Starting in fall 2018, for each entering cohort (freshmen and transfer students new to U-M matriculating in summer or fall of that year), two comparison groups were sampled. After inviting a subset of the entering cohort to join SuccessConnects, any students who had been invited but chose not to join made up the Comparison group population, from which a stratified random sample was drawn. Stratification was used to ensure the Comparison group was demographically similar to the group of SuccessConnects scholars with respect to first-generation college student and underrepresented minority (URM) status. The Comparison group represented the population of students who were invited to participate in SuccessConnects but chose not to opt-in. Similarly, all matriculating students who were not invited to join SuccessConnects constituted the Traditional group population, from which a stratified random sample was drawn. The Traditional group sample was stratified on race/ethnicity to ensure that the proportion of each racial-ethnic group in the sample closely resembled that of the overall Traditional group population. The Traditional group represented the population of students who were not invited to participate in Success Connects. Finally, for purposes of this evaluation, participation in SuccessConnects was defined as completing an application to join the program during that particular academic year (the academic year corresponding to a student’s first, second, or third year at U-M). Although a subset of students entering U-M each fall are invited to participate in SuccessConnects, any undergraduate student at U-M, regardless of background, may join SuccessConnects. Only students who completed an application or were otherwise determined by the program to be a participant in that year were included in that year’s analyses.

Demographic Comparisons

This section describes the demographic profile of the SuccessConnects (SC) program participants, Comparison students and Traditional students, including details on gender, race, underrepresented minority (URM) status and first-generation college student status, disaggregated by participation group. These data were from the U-M Data Warehouse. The data presented in Table 2 describe the demographics of our sample at Year 1³.

³ Although demographic information is presented only at Year 1, the patterns across most demographic variables are similar in Years 2 and 3. The only exception is gender for SC program participants in Year 2 and Year 3 are 71.7% and 86.3% female, respectively, which is higher than the percent of female SC students in Year 1 at 62.7%.



Across all three cohorts, SuccessConnects served 962 students in their first year at U-M. Among these students, 62.7% were female, 53.9% were students from underrepresented racially minoritized groups and 47.5% were first-generation college students. Although the SuccessConnects group had the highest proportion of female students among all three groups, both the SuccessConnects and Comparison groups had a higher proportion of female students than male students, whereas the Traditional group had a higher proportion of male students than female students. The SuccessConnects group had fairly similar proportions of White, Black and Hispanic/Latinx⁴ students (26.5%, 25.5%, and 22.0%, respectively), whereas the Comparison group had more White students (35.4%) than either Hispanic/Latinx (28.2%) or Black (11.7%) students. The Traditional group included mostly White (61.0%) and Asian⁵ (26.0%) students and included very few Black (0.5%) and Hispanic/Latinx (1.8%) students. Similarly, both the SuccessConnects and Comparison groups had large proportions of URM students (53.9% and 48.2%, respectively); whereas the Traditional group had a very small proportion of URM students (1.1%). The same pattern held for first-generation college students, with both SuccessConnects and Comparison groups having large percentages of first-generation college students (47.5% and 50.7%, respectively) while the Traditional group had a small percentage of first-generation college students (3.5%).

Table 2. Demographic Information by Participation Group in Year 1

	SuccessConnects		Comparison		Traditional		ALL	
	N	%	N	%	N	%	N	%
Gender	962		1388		1429		3779	
Female	603	62.7%	760	54.8%	689	48.2%	2052	54.3%
Male	359	37.3%	628	45.2%	740	51.8%	1727	45.7%
Race/Ethnicity	962		1388		1429		3779	
White	255	26.5%	491	35.4%	871	61.0%	1617	42.8%
Black	245	25.5%	163	11.7%	7	0.5%	415	11.0%
Hispanic/Latinx	212	22.0%	391	28.2%	26	1.8%	629	16.6%
Asian	158	16.4%	182	13.1%	371	26.0%	711	18.8%
2 or more racial groups ⁶	62	6.4%	124	8.9%	53	3.7%	239	6.3%
Not Indicated	25	2.6%	30	2.2%	99	6.9%	154	4.1%
Native American	4	0.4%	6	0.4%	1	0.1%	11	0.3%
Hawaiian	1	0.1%	1	0.1%	1	0.1%	3	0.1%
URM Status⁷	942		1381		1235		3558	
URM	508	53.9%	666	48.2%	14	1.1%	1188	33.4%
Non-URM	434	46.1%	715	51.8%	1221	98.9%	2370	66.6%
First-Generation College Student Status	962		1388		1429		3779	

⁴ “Hispanic/Latinx” is also referred to as “Hispanic/Latino,” “Hispanic or Latinx” or “Hispanic” in this appendix report.

⁵ “Asian/Asian American” is referred to as “Asian” or “Asian or Pacific Islander” in this appendix report.

⁶ “Bi/multiracial” is also referred to as “2 or more races” in this appendix report.

⁷ Does not include International students.



First-Generation	457	47.5%	704	50.7%	50	3.5%	1211	32.0%
Non-First-Generation	505	52.5%	684	49.3%	1379	96.5%	2568	68.0%

Academic Comparisons

GPA

Analyses were conducted examining the cumulative GPAs of students at the end of their first, second and third years at U-M. These analyses examined group differences in the average cumulative GPAs of SuccessConnects students, Comparison group students and Traditional group students. Cumulative GPAs were based on students' GPAs after the winter term of their first, second and third years at U-M.

Summary of GPA Analyses. At the end of their first year, SuccessConnects students had an average cumulative GPA of 3.47 ($SD = 0.47$), which increased slightly at the end of their second year ($M = 3.52$, $SD = 0.37$) and decreased slightly by the end of their third year ($M = 3.48$, $SD = 0.34$) (see Table 3).

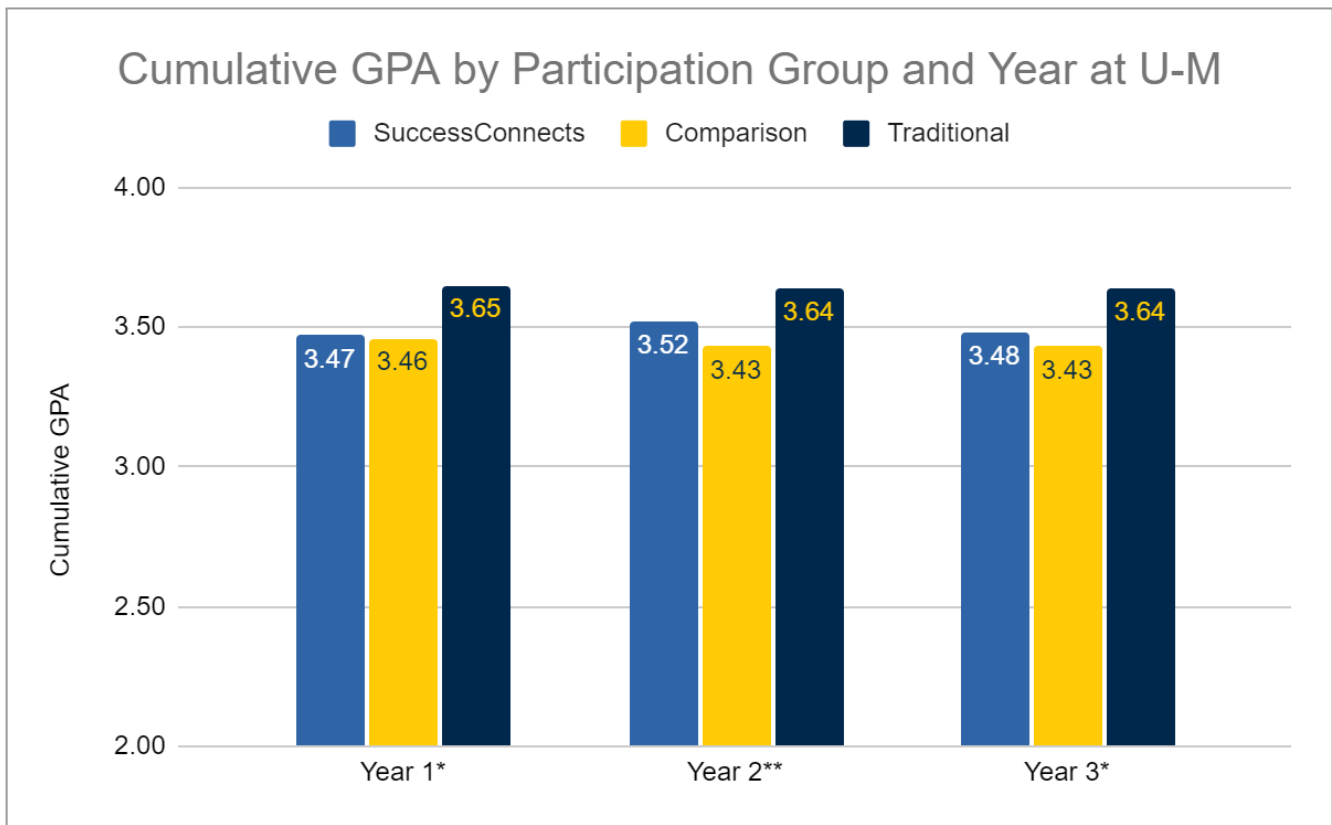
Table 3. Cumulative GPA by Year at U-M and Participation Group

	Year 1			Year 2			Year 3		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
SuccessConnects	3.47	0.47	945	3.52	0.37	342	3.48	0.34	89
Comparison	3.46	0.47	1350	3.43	0.44	816	3.43	0.42	315
Traditional	3.65	0.38	1400	3.64	0.32	888	3.64	0.31	399
All Students	3.53	0.45	3695	3.54	0.39	2046	3.54	0.37	803

At the end of Year 1, significant group differences in cumulative GPA were observed ($F(2, 3692) = 79.19$, $p < .001$, $\eta^2 = .04$ (small-medium effect)), such that students in the Traditional group had a significantly higher GPA ($M = 3.65$) than either the SuccessConnects students ($M = 3.47$) or the Comparison group students ($M = 3.46$), who did not differ from one another. At the end of Year 2, significant differences in cumulative GPA were observed ($F(2, 2043) = 64.98$, $p < .001$, $\eta^2 = .06$ (medium effect)) between the groups. SuccessConnects students had a significantly higher GPA ($M = 3.52$) than the Comparison students ($M = 3.43$); however, both groups had a significantly lower GPA than Traditional students ($M = 3.64$). Similar to Year 1, at the end of Year 3, there were significant group differences in GPA ($F(2, 800) = 32.00$, $p < .001$, $\eta^2 = .07$ (medium effect)), such that Traditional students had a significantly higher GPA ($M = 3.64$) than either the SuccessConnects students ($M = 3.48$) or the Comparison group students ($M = 3.43$), whose GPAs were similar (see Figure 4).



Figure 4. Cumulative GPA by Participation Group and Year at U-M



*The Traditional group has a significantly higher cumulative GPA than both the SuccessConnects and the Comparison groups ($p < .05$). SuccessConnects and Comparison groups do not significantly differ.

**All group differences in cumulative GPA are statistically significant, $p < .05$.

Conclusions - GPA. First year students who participated in SuccessConnects had first year GPAs that were similar to those of Comparison students, whereas Traditional students had GPAs that were significantly higher than SuccessConnects and Comparison students. In their **second** year, however, students in SuccessConnects had significantly higher second year GPAs than students in the Comparison group. Although the second-year GPA of SuccessConnects students remained significantly lower than that of Traditional students, the SuccessConnects GPA is higher than that of Comparison students. This suggests potential academic “boost” effects of participating in SuccessConnects, as reflected in GPA. At the end of their **third** year, students who participated in SuccessConnects had third year cumulative GPAs that were similar to Comparison students, but both groups have significantly lower cumulative GPAs when compared to Traditional students. Given the demographics of the SuccessConnects students (reflecting students from more underrepresented or historically minoritized backgrounds), the data findings still may represent a “narrowing” of the achievement gap noted by researchers for students from underrepresented or historically minoritized groups when compared to more traditional, non-minoritized college students⁸.

⁸ Whitcomb, K. M., & Singh, C. (2021). Underrepresented minority students receive lower grades and have higher rates of attrition across STEM disciplines: A sign of inequity? *International Journal of Science Education*, 43(7), 1054-1089. <https://doi.org/10.1080/09500693.2021.1900623>



Resource Utilization

Students' utilization of several U-M resources was assessed through questions in the annual survey administered to all SuccessConnects, Comparison and Traditional students. Survey questions asked students how often they have utilized particular types of resources in the past academic year at U-M.

Questions asked about use of 5 resource types: *Academic Advising* (e.g., Newnan LSA Academic Advising Center, Engineering Advising Center, etc.); *Academic Support and Mentorship* (e.g., Engineering Learning Center (ELC); Honors Peer Mentorship, etc.); *Tutoring, Research and Writing Resources* (e.g., Math Tutoring, Librarians, Sweetland Writing Center, etc.); *Wellness Resources* (e.g., U-M Counseling and Psychological Services U-M Depression Center, etc.) and *Diversity and Multicultural Resources* (e.g., Trotter Multicultural Center, Spectrum Center, etc.). Responses were rated on a 0 to 4 scale, with responses reflecting: Never (0), Rarely (e.g., once or twice a year) (1), Occasionally (e.g., once or twice a semester) (2), Frequently (e.g., on a monthly basis) (3) and Very Frequently (e.g., on a weekly basis) (4).

For each student an average value representing utilization of resources was calculated from responses across questions for each of the 5 resource types. A series of ANOVAs were performed to examine if there were group differences in students' utilization of campus resources across first, second and third year groups at U-M.

Summary of Resource Utilization Analyses. SuccessConnects students reported utilizing U-M resources on average a few times a year in Year 1 ($M = 1.39$, $SD = 0.74$), Year 2 ($M = 1.43$, $SD = 0.75$) and Year 3 ($M = 1.38$, $SD = 0.96$) (see Table 4).

Table 4. Utilization of U-M Resources by Year at U-M and Participation Group

	Year 1			Year 2			Year 3		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
SuccessConnects	1.39	0.74	436	1.43	0.75	151	1.38	0.96	21
Comparison	1.06	0.69	414	0.95	0.66	191	0.73	0.69	29
Traditional	0.90	0.57	364	0.77	0.57	160	0.57	0.56	29
All Students	1.13	0.71	1214	1.03	0.71	502	0.84	0.79	79

During their first year, there were significant differences in the utilization of campus resources ($F(2, 1211) = 56.48$, $p < .001$, $\eta^2 = .09$ (medium effect)). All groups differed significantly from each other, such that SuccessConnects students utilized campus resources most often ($M = 1.39$), followed by Comparison students ($M = 1.06$), while Traditional students reported using campus resources least often ($M = 0.90$). A similar pattern was observed for the second year ($F(2, 499) = 41.36$, $p < .001$, partial $\eta^2 = .14$ (large effect)), again with SuccessConnects students most frequently accessing campus resources ($M = 1.42$), Comparison students in the middle ($M = 0.95$) and Traditional students accessing campus resources least frequently ($M = 0.77$). Finally, there were significant third year group differences ($F(2, 76) = 8.17$, $p < .001$, partial $\eta^2 = .18$ (large effect)), with SuccessConnects students using campus resources more often ($M = 1.38$) than either Comparison students ($M = 0.73$) or Traditional students ($M = 0.57$), who did not differ from each other.



Conclusions - Utilization of U-M Resources. In their **first, second** and **third** years at U-M, SuccessConnects students reported utilizing significantly more campus resources than either the Comparison or Traditional students. In their **first** and **second** years, Comparison students reported using more resources than did Traditional students, although this difference was not significant during their **third** year. The findings indicate that SuccessConnects students are taking advantage of the multiple resources offered to them at U-M, over and above the resources they have available with SuccessConnects itself. One of the elements of the mentor relationship is to connect students to campus resources, and these findings demonstrate that SuccessConnects students were engaging with those resources with more frequency than their peers.

Psychosocial Comparisons

Flourishing

An 8-item “flourishing” scale⁹ was administered to measure students’ psychological well-being. The scale includes items such as “I lead a purposeful and meaningful life,” “I actively contribute to the happiness and well-being of others,” “I am a good person and live a good life” and “I am optimistic about my future”. Students were asked to indicate their agreement with the items on a 1 to 7 scale, ranging from *strongly disagree* to *strongly agree*.

Using students’ responses to the 8 items, an average value representing their psychological well being was calculated, with higher scores indicating more positive well being. These values were compared for SuccessConnects, Comparison and Traditional students, and a series of ANOVAs were performed to examine if there were group differences in students’ psychological well-being in their first, second and third year at U-M.

Summary of Flourishing Analyses. SuccessConnects students reported experiencing high levels of flourishing/positive psychological well being during Year 1 ($M = 5.55$, $SD = 1.01$), Year 2 ($M = 5.73$, $SD = 0.85$) and Year 3 ($M = 5.62$, $SD = 0.76$) at U-M (see Table 5).

Table 5. Flourishing by Year at U-M and Participation Group

	Year 1			Year 2			Year 3		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
SuccessConnects	5.55	1.01	211	5.73	0.85	130	5.62	0.76	16
Comparison	5.46	1.00	229	5.38	1.05	171	5.21	1.20	26
Traditional	5.47	0.96	193	5.57	0.95	146	5.51	1.04	26
All Students	5.49	0.99	633	5.54	0.97	447	5.42	1.05	68

There were no significant differences in flourishing found between SuccessConnects students ($M = 5.55$), Comparison students ($M = 5.46$) and Traditional students ($M = 5.47$) at the end of Year 1 ($F(2, 630) = 0.55$, $p = ns$). However, at the end of Year 2, significant differences in flourishing were observed ($F(2, 444) = 5.19$, $p < .01$, partial $\eta^2 = .02$ (small effect)), such that SuccessConnects

⁹ Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2010). New measures of well-being: Flourishing and the positive and negative feelings. *Social Indicators Research*, 39, 247-266. <https://doi.org/10.1007/s11205-009-9493-y>



students reported higher levels of flourishing ($M = 5.73$) than Comparison students ($M = 5.38$) but did not differ from Traditional students ($M = 5.57$). Comparison and Traditional students did not differ significantly in their levels of flourishing. Finally, no significant differences in flourishing were found between SuccessConnects students ($M = 5.62$), Comparison students ($M = 5.21$) and Traditional students ($M = 5.51$) at the end of Year 3 ($F(2, 65) = 0.90, p = ns$), although a similar pattern of SuccessConnects students experiencing the highest level of flourishing was noted.

Conclusions Regarding Flourishing. In their **first** year at U-M, SuccessConnects, Comparison and Traditional students did not significantly differ in their self-reported flourishing. However, in their **second** year at U-M, there were significant differences, such that SuccessConnects students reported greater psychological well being than did Comparison students. The Traditional group did not differ significantly from either group. In their **third** year, the three groups did not significantly differ in their levels of flourishing. SuccessConnects students experienced similar or more positive well being and more stable, positive feelings of thriving over time compared to students from similar backgrounds who did not participate in the program. The findings suggest the psychosocial benefits of the SuccessConnects program, particularly for students from marginalized backgrounds.

Imposter Syndrome

A 20-item “imposter phenomenon” scale¹⁰ was administered to measure the extent to which students feel like their successes are due to “luck” or chance and not their own abilities, thus leading them to feel like “imposters”¹¹. This scale includes items such as “I can give the impression that I’m more competent than I really am,” “I avoid evaluations if possible and have a dread of others evaluating me,” “I’m afraid people important to me may find out that I’m not as capable as they think I am,” and “It’s hard for me to accept compliments or praise about my intelligence or accomplishments”. Students were asked to indicate how true each statement is of them, on a scale of 1 (*not at all true*) to 5 (*very true*).

Using students’ responses to the 20 items, an average value representing their level of imposter syndrome was calculated, with higher scores indicating greater endorsement of feelings consistent with the imposter phenomenon. These values were compared for SuccessConnects, Comparison and Traditional students in their first, second and third years. A series of ANOVAs were performed to examine if there were group differences in students’ feelings of imposter syndrome.

Summary of Imposter Phenomenon Analyses. SuccessConnects students reported a slight increase in their feelings of imposter syndrome over Year 1 ($M = 3.27, SD = 0.76$), Year 2 ($M = 3.32, SD = 0.68$) and Year 3 ($M = 3.44, SD = 0.66$) (see Table 6).

¹⁰ Clance, P. R. (1985). *The Impostor Phenomenon: When Success Makes You Feel Like A Fake*. Bantam Books.

¹¹ Chrisman S. M., Pieper W. A., Clance P. R., Holland C. L., Glickauf-Hughes C. (1995). Validation of the clance imposter phenomenon scale. *Journal of Personality Assessment*, 65(3), 456–467. https://doi.org/10.1207/s15327752jpa6503_6



Table 6. Imposter Phenomenon by Year at U-M and Participation Group

	Year 1			Year 2			Year 3		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
SuccessConnects	3.27	0.76	211	3.32	0.68	128	3.44	0.66	15
Comparison	3.26	0.71	228	3.23	0.70	166	3.41	0.65	25
Traditional	3.18	0.73	189	3.08	0.69	143	3.08	0.79	24
All Students	3.24	0.73	628	3.21	0.70	437	3.29	0.71	64

No significant differences in imposter syndrome were observed between SuccessConnects ($M = 3.27$), Comparison ($M = 3.26$) and Traditional ($M = 3.18$) students at the end of Year 1 ($F(2, 625) = 0.84, p = ns$). However, there were significant differences in imposter syndrome in Year 2 ($F(2, 434) = 4.02, p < .05$, partial $\eta^2 = .02$ (small effect)), such that SuccessConnects students had higher imposter syndrome scores ($M = 3.32$) than Traditional ($M = 3.08$) students but did not differ from Comparison ($M = 3.23$) students, whereas Comparison and Traditional students did not statistically differ from each other. Year 3 findings mirrored Year 1, with no significant differences between SuccessConnects ($M = 3.44$), Comparison ($M = 3.41$) and Traditional ($M = 3.08$) students ($F(2, 61) = 1.74, p = ns$).

Conclusions Regarding Imposter Syndrome. Similar to the findings for Flourishing, in their **first** year at U-M, SuccessConnects, Comparison and Traditional students did not significantly differ in their responses to how much they experienced imposter syndrome. However, in their **second** year at U-M, SuccessConnects students reported more feelings of imposter syndrome than did Traditional students. No other significant group differences were found. In their **third** year, the three groups did not significantly differ in reported imposter syndrome feelings. However, in all three years the pattern is similar, with SuccessConnects and Comparison students reporting higher levels of imposter syndrome compared to Traditional students. These findings, when considered along with the findings regarding flourishing, suggest that although SuccessConnects students report feeling like imposters more than Traditional students, they are still thriving and experiencing positive psychological well being similar to Traditional students (and more so than students in the Comparison group). Participation in SuccessConnects may serve as a potential buffer against the negative impacts of imposter syndrome on students’ psychological well being experienced by all students and especially for those experiencing underrepresented status.

Sense of Belonging

Making connections and finding a community in which you belong is an important part of successful student retention and completion. Students who are more engaged in their campus community are more likely to persist than other students¹². Therefore, one of the goals of the SuccessConnects program is to provide students with a vibrant “community of scholars and leaders amongst whom they can thrive,” and this serves as one of the components to Success Connects’ holistic approach to student success.

To measure students’ perceptions of belonging at U-M, the annual survey includes an item from the U-M Climate survey, which asks students to indicate their level of agreement with the statement “I

¹² Tinto, V. (2016, September 26). From retention to persistence. Inside Higher Ed. <https://www.insidehighered.com/views/2016/09/26/how-improve-student-persistence-and-completion-essay>



have found one or more communities or groups where I feel I belong at U-M.” Students responded on a 1 to 5 scale, where 1 indicated “*strongly disagree*” and 5 indicated “*strongly agree*”.

Item responses were compared for SuccessConnects, Comparison and Traditional students, and a series of ANOVAs were performed to examine if there were group differences in students’ sense of belonging in their first, second and third year at U-M.

Summary of Analyses for Sense of Belonging. SuccessConnects students reported high levels of agreement with having found one or more communities in which they belong in Year 1 ($M = 3.76$, $SD = 1.07$), Year 2 ($M = 4.10$, $SD = 1.03$) and Year 3 ($M = 4.00$, $SD = 0.76$) (see Table 7).

Table 7. Sense of Belonging by Year at U-M and Participation Group

	Year 1			Year 2			Year 3		
	Mean	SD	N	Mean	SD	N	Mean	SD	N
SuccessConnects	3.76	1.07	391	4.10	1.03	126	4.00	0.76	15
Comparison	3.64	1.18	392	3.75	1.16	165	3.28	1.24	25
Traditional	3.79	1.13	333	3.86	1.09	143	3.95	1.00	22
All Students	3.73	1.13	1116	3.89	1.11	434	3.69	1.10	62

At the end of Year 1, no group differences in a sense of belonging were found ($F(2, 1113) = 1.86$, $p = .16$ (ns)) between SuccessConnects ($M = 3.76$), Comparison ($M = 3.64$) and Traditional ($M = 3.79$) students. However, in Year 2, SuccessConnects students ($M = 4.10$) indicated stronger agreement with having found one or more communities at U-M in which they belong than did Comparison ($M = 3.75$) students ($F(2, 431) = 3.73$, $p < .05$, partial $\eta^2 = .02$ (small effect)). Traditional ($M = 3.86$) students did not differ from either SuccessConnects or Comparison students. In Year 3, the resulting pattern¹³ was SuccessConnects ($M = 4.00$) and Traditional ($M = 3.95$) students reporting more agreement with having found a community to belong and Comparison students ($M = 3.28$) reporting less agreement with having found a community to belong ($F(2, 59) = 3.21$, $p < .05$, partial $\eta^2 = .10$ (medium-large effect)).

Conclusions Regarding Sense of Belonging. In their **first** year at U-M, SuccessConnects, Comparison and Traditional students did not significantly differ in their responses to how much they agree or disagree with the statement that they had found one or more communities or groups where they felt they belonged. However, in their **second** year at U-M, there are significant differences, such that SuccessConnects students reported a stronger sense of community and belonging than did Comparison students. The Traditional group did not differ significantly from either group. A similar trend emerged for students in their **third** year as well. Findings suggest that SuccessConnects supports a sense of connection between students and the university community, which is important given research noting the promotive role of sense of belonging in positive student engagement and successful retention and completion.

¹³ While the omnibus (overall) ANOVA test was significant, indicating group differences in belonging among the three groups (SuccessConnects, Comparison, and Traditional), there were no significant pairwise comparisons using the Games-Howell post hoc test (equal variances and sample sizes not assumed).



Graduation Rates and Post-Graduation Plans

Finally, this evaluation analyzed the graduation rates and the post-graduation plans of students finishing their undergraduate careers at U-M. The first section investigated graduation rates of SuccessConnects students and examined similarities and differences in graduation rates among SuccessConnects, Comparison and Traditional students, while the second section utilized survey data from an earlier cohort of SuccessConnects to explore scholars' post-graduation plans and to help understand the choices, decisions and options awaiting them after graduation.

Graduation Rates

Analyses, examining those students from our samples whose first year at U-M was AY2018-2019 ("Fall 2018 Cohort")¹⁴ were conducted to understand graduation rates and determine if there were differences in those rates based on participation group. These analyses utilized data from the winter 2022 term obtained from the U-M Data-Warehouse. Group differences were examined using two-proportion z-tests and a chi-square test for differences in proportions.

Year 4 Graduation Rates

Of the 1,191 students who were part of our Fall 2018 Cohort (392 SuccessConnects, 373 Comparison, 426 Traditional), 865 (72.6%) had earned their undergraduate degree from U-M as of winter 2022. Another 62 (5.2%) had pending degrees. An additional 60 (5.0%) had applied for graduation and 204 (17.1%) had not yet applied for graduation as of winter 2022. Of the 865 students who had received their degree by winter 2022, 708 (81.8%) graduated in 2022, 114 (13.2%) graduated in 2021, 42 (4.9%) graduated in 2020, and 1 student (0.1%) graduated in 2019. Of the students who graduated, 570 (65.9%) were domestic non-URM students, 245 (28.3%) were domestic URM students and 50 (5.8%) were international students. The racial/ethnic backgrounds of these students are as follows: 413 (47.7%) were White, 137 (15.8%) were Hispanic, 133 (15.4%) were Asian or Pacific Islander, 84 (9.7%) were Black, 60 (6.9%) were Bi/Multiracial, 37 (4.3%) did not indicate their ethnicity and less than 1% were Hawaiian. Finally, of the 865 students who graduated, 266 (30.8%) were first-generation college students and 71 (8.2%) were transfer students.

Group Comparisons. We examined differences in graduation rates based on participation in SuccessConnects, and there was a significant association between participation group and graduation status ($\chi^2 = 15.042, p < .001$), such that Traditional students had a significantly higher graduation rate (79.3%, $n = 338$) than either SuccessConnects (68.9%, $n = 270$) or Comparison (68.9%, $n = 257$) students ($z = 3.42, p < .001$ and $z = 3.38, p < .001$, respectively).

¹⁴ The vast majority ($n = 1,189$ of 1,191) of these students first attended U-M in either summer 2018 ($n = 213$) or fall 2018 ($n = 976$), however, this cohort also includes two students who first attended U-M in winter 2019 or spring 2019.



Post-Graduation Plans

In order to gain a better understanding of students’ plans for after college, we utilized survey data from an earlier cohort of students. Specifically, we used the winter 2020 annual survey¹⁵, in which students were asked about their graduation and post-graduation plans, allowing us to explore responses for students who reported they would graduate in 2020.

Winter 2020 Post-Graduation Plans

Among students completing the survey¹⁶, 112 respondents indicated that they would graduate in 2020. 70.5% (79) of these students were in their fourth year at U-M, 10.7% (12) were in their third year and 16.1% (18) were in their second year. Another two students were in their first year, and one student was in their fifth year.

Of these 112 students, 98 (87.5%) were current or past participants in SuccessConnects, 11 (9.8%) were Comparison students and three (2.7%) were Traditional students. A total of 45 (40.2%) were URM students, 64 (57.14%) were first-generation college students and 15 (13.4%) were transfer students. Finally, 44 (39.3%) students were White, 20 (17.9%) were Hispanic, 19 (17.0%) were Asian, 18 (16.1%) were Black, 10 (8.9%) were Bi/Multiracial and one student did not indicate their ethnicity.

Post-Graduation Plans: Employment. In this group of students, 66 (58.9%) students said they planned to work within a year of receiving their degree. Fifty-eight (87.88%) students planning to work were current or past participants in SuccessConnects, six (9.1%) were Comparison students and two (3.03%) were Traditional students. Of the 65 students who reported their progress in the job search process, 27 (41.5%) had already formally accepted a job offer. Another 4 (6.2%) were deciding between offers, 17 (26.2%) were applying to/interviewing for jobs and 17 (26.2%) had not started applying to jobs. Of the 65 students who commented on the type of job they had committed to, 34 (52.3%) viewed the job as a “step in my career,” 22 (33.8%) viewed it as a “short-term job” and 9 (13.8%) viewed it as a “long-term job.”

Post-Graduation Plans: Graduate or Professional School. A total of 40 (35.7%) students said they planned to attend graduate or professional school within a year of receiving their degree. Of these 40 students, 35 (87.5%) were current or past participants in SuccessConnects, four (10.0%) were Comparison students and one (2.5%) was a Traditional student. In terms of their progress in the graduate school application process, 16 (40.0%) had formally accepted an offer from a graduate/professional school, three (7.5%) were deciding between schools, five (12.5%) were in the process of applying to schools and 16 (40.0%) had not started applying yet.

¹⁵ As previously mentioned, due to budget constraints during the COVID-19 pandemic, survey incentives were limited, which significantly lowered response rates. As a result, we have not included responses from the winter 2021 survey in the post-graduation plans analysis.

¹⁶ This section of the survey was completed by graduating students only. In winter 2020 (the term in which this data is from), the students who were graduating were largely SuccessConnects participants, because most of the graduating students entered U-M in fall 2016 and there were no comparison group samples in the fall 2016 cohort. The handful of Comparison and Traditional students who were graduating were mostly transfer students or students who graduated U-M early (in less than 4 years). As such, the information from this survey provides insight into primarily SuccessConnects students’ post-graduation plans.



Conclusions for SuccessConnects Graduation Rates and Post-Graduation Plans

Examining graduation records in winter 2022, we found that an overwhelming majority of students in our sample who started at U-M in fall 2018 had successfully earned their undergraduate degrees within their first 4 years at U-M. Yet differences still emerged between Traditional students and SuccessConnects students in their graduation rates, suggesting that the positive program impacts we saw in other areas did not extend to the longer term outcome of graduation rates among students in the fall 2018 cohort. However, the winter 2020 survey data allowed us to understand the post-graduation plans of SuccessConnects students, highlighting that even at the beginning of a global pandemic, many were successfully transitioning from their undergraduate work to graduate school or employment within their chosen career field.

Overall Conclusions

The SuccessConnects program provides numerous opportunities that promote holistic student success. It supports students in developing academically and personally as they transition to the University of Michigan and also during their undergraduate academic careers and beyond. SuccessConnects students are highly satisfied with the program and see many benefits of participating. These advantages are particularly noticeable in the second year, when SuccessConnects students have higher GPAs than students from similar backgrounds, use available campus resources more frequently than other students and report higher levels of flourishing and belonging than students from similar backgrounds, all in spite of experiencing a greater sense of imposter syndrome than traditional college students. SuccessConnects students continue these strengths through graduation, and many SuccessConnects students report plans of furthering their education by attending graduate school, while others have viable employment opportunities. Taken together, these findings indicate that the SuccessConnects program provides students with a supportive environment, helping to encourage students' success in their academic and personal endeavors.

