College of Sciences Working Group – Findings and Recommendations Report

November 30, 2023
College of Sciences Working Group | Academic Affairs
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- Katie Meersman, Assistant Vice Provost, Strategic Initiatives
Executive Summary

The College of Sciences Working Group was formed in August 2023 to evaluate the possibility of moving Environmental Science degree programs to the Earth and Planetary Sciences department, and to consider other possible notional models in order to best support student success, teaching, and research excellence moving forward. The Working Group followed a thorough process, outlined in this document, to gather stakeholder input from faculty, students, and staff. This document summarizes the findings of that process, presents the recommendations regarding the two possible configurations that seem viable, and suggests possible areas of improvement regardless of organizational structure. Thank you to each of the Working Group members for their time, energy, and contributions to this process and to this report.

Introduction

Faculty and staff play a vital role in contributing perspectives and expertise to inform the decision-making process. Interim Provost Shipley requested a College Working Group be created to evaluate the proposed move of Environmental Science (ES) programs from the Department of Integrative Biology (IB) to the Department of Earth and Planetary Sciences (EPS). Through engaging stakeholders in facilitated discussions, reviewing configurations at peer institutions, and collecting survey data, the group sought deep and broad input to investigate the feasibility of moving ES programs into EPS, as well as other possible configurations in relation to both the IB and EPS departments.

Department of Integrative Biology

The Department of Integrative Biology comprises faculty with expertise in biological structures and systems, animal science, plant biology, science education, environmental science, and ecology. The IB Department offers undergraduate and graduate programs in biology and environmental science as well as secondary science teacher preparation programs. The IB Department also offers courses in the Core Curriculum and required courses for other majors that require a life sciences foundation. The IB Department houses the following academic programs:

- Bachelor of Science (BS) in Biology
- Bachelor of Science (BS) in Environmental Science
- Bachelor of Science (BS) in Multidisciplinary Science for Teaching
- Bachelor of Arts (BA) in Environmental Studies
- Master of Science (MS) in Biology
- Master of Science (MS) in Environmental Science
The current research themes of the IB Department are Aquatic Science, Conservation and Restoration Ecology, Natural Resources and Wildlife Management, and Plant Biology.

**Department of Earth and Planetary Sciences**

The Department of Earth and Planetary Sciences comprises faculty focused in geological and environmental problems. The EPS department teaches geosciences courses in the Core Curriculum, required courses for other majors, and major-specific courses in geosciences. It houses the following academic programs:

- Bachelor of Arts (BA) in Geosciences
- Bachelor of Science (BS) in Geosciences
- Master of Science (MS) in Geoinformatics
- Master of Science (MS) in Geosciences
- Doctor of Philosophy (Ph.D.) in Environmental Science and Engineering – joint program with the Department of Earth and Planetary Sciences and the School of Civil & Environmental Engineering, and Construction Management

The current research themes of the department are Geology and Geophysics, Paleoenvironment Reconstruction, Polar and Climate Sciences, Water Science, Stratigraphy/Sedimentary Environment, Remote Sensing/Geoinformatics, Planetary Sciences/Exoplanets, Atmospheric Sciences, Paleontology/Paleoecology, and Volcanology.

**Working Group Charge**

To facilitate the process of evaluating the move of ES programs to the EPS department and the visioning of a new IB department, this Working Group was charged with conducting outreach to relevant stakeholders to seek input on the alignment that will maximize student success and research excellence for faculty, students, and staff in these areas and provide a recommendation to college and university leadership on suggested organizational structure models.

**Parameters**

- Student-centric: geared towards increasing student success (i.e., enrollment, retention, graduation, advancing career outcomes).
- Focused on maximizing research excellence through federal funding, transdisciplinary collaborations, pipeline and success of graduate students (particularly doctoral), national and international recognition, etc.
- Logical, intuitive, and centered around the future of biological studies, environmental studies and earth and planetary sciences.
• Focused around maximizing synergies and new opportunities in academic programs, research, and external partnerships, etc.

**Inputs**

• Understand the needs of UTSA students pursuing biology, environmental science, science education, and geosciences.
• Clarify the needs of faculty around teaching and research.
• Identify best practice models at other institutions.

**Final Recommendations**

• Diagram and describe the proposed units and academic programs that would be better aligned in the recommended departmental organizational structure.
• List the benefits to faculty, students, and staff of the proposed structure.
• List all potential risks and describe the risk avoidance plan, including any potential impacts to existing departments/programs.
• Describe other models that were considered but deemed by the Working Group to be less workable, feasible, or desirable.

**Working Group Membership, Structure, and Focus Areas**

The Working Group included faculty of various ranks in the Integrative Biology and Earth and Planetary Sciences departments, as well as faculty from additional departments within the College of Sciences. The group also included undergraduate and graduate student representatives, as well as a staff member, to ensure the Working Group had continuous input from all major groups.

The Working Group had its first meeting in August 2023 and met weekly for 90 minutes. The Group followed a similar approach as other Working Groups at UTSA that have been charged with visioning efforts:
The Working Group considered splitting into sub-groups around stakeholder input, existing data, and peer comparison areas, but ultimately decided to approach these areas collectively.

**Working Group Process and Key Findings**

The group spent its early meetings reviewing the charge, establishing shared values, and identifying approaches to gathering stakeholder input and other types of information to be able to make a recommendation. The Working Group decided to collect qualitative and quantitative input from faculty, students, and staff in the form of surveys, town halls, and listening sessions, distributing its first survey in September.

**Faculty and Staff Survey 1: Configuration Effectiveness and Preferences**

The first survey focused on collecting input around the effectiveness of the current departmental configuration in terms of student support/success, teaching effectiveness, and research support. It also asked for preliminary input into whether the current IB and EPS configuration should remain as-is or whether one or more programs should be moved out of IB and into EPS. It also provided an open-ended opportunity for respondents to suggest other possible configurations and explain why they felt it was best for students, faculty, and staff. Finally, it asked respondents to identify what they perceive as potential impacts of moving one or more programs or keeping them in their current configuration. A summary of the results appears below; see Appendix A for detailed results.
The survey was distributed to 132 faculty and staff in the IB and EPS departments. Of those, 49 responded, resulting in a response rate of 37%. Respondents were asked to identify their program(s) affiliation: 38% selected Environmental Science ES, 36% indicated Biology, and 24% indicated Earth and Planetary Sciences. An additional 2% chose not to identify.

When asked about whether to keep the current configuration or to move one or more ES programs into EPS, the results were as follows:

<table>
<thead>
<tr>
<th>Question: Moving forward, choose the option you believe will work best:</th>
<th>Bio</th>
<th>ES</th>
<th>EPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keep the current configuration as-is. In this configuration, Integrative Biology would continue to encompass the biology, multidisciplinary science, and environmental science programs. Earth and Planetary Sciences would continue to function as a standalone department.</td>
<td>46%</td>
<td>29%</td>
<td>7%</td>
</tr>
<tr>
<td>Move one or more degree programs into Earth and Planetary Sciences.</td>
<td>33%</td>
<td>33%</td>
<td>80%</td>
</tr>
</tbody>
</table>
  - BS in Multidisciplinary Science for Teaching
  - BA in Environmental Studies
  - BS in Environmental Science
  - MS in Environmental Science |
| Other* | 21% | 38% | 13% |
| Total | 100% | 100% | 100% |

*Respondents who selected “Other” were given the option to expand on this answer with their ideas, which were considered and ultimately reflected in the list of notional models that the Working Group considered. One of the most commonly suggested alternatives was ES becoming its own independent department, which is among the notional models that the group assessed.

**Qualitative trends**

It appears from the table above, and is further supported by the open-ended responses, that opinions largely are divided into two camps: people who are in favor of the move because they think the ES and EPS programs would complement each other, or people who feel the opposite and that ES is more appropriately placed in IB. There is a smaller third group (reflected in the “Other” responses) in support of ES becoming its own independent department.

Another trend was the sense that frequent changes and reconfigurations have resulted in change fatigue among faculty, staff, and students, and that there has
not been sufficient time to fully implement and assess whether the merger of ES and Biology into IB in 2021 has been successful.

Finally, there were operational concerns, such as wondering how a move to EPS from IB would work for ES and the impact on Biology becoming a standalone department.

**Student Survey 1: Configuration Effectiveness and Preferences**

A similar version of the survey was sent to students, but without the questions related to teaching and research.

The survey was distributed to 2,798 undergraduate and graduate students in majors in the IB and EPS departments. Of those, 70 responded, resulting in a response rate of 2.5%. Anticipating a low response rate, the committee opted not to ask students to identify their specific program to ensure anonymity. A summary of the results appears below; see Appendix B for detailed results.

When asked about whether to keep the current configuration as-is or to move one or more ES programs into EPS, the results were as follows:

<table>
<thead>
<tr>
<th>Question: To best support your academic success, which of the following do you think would work best for the Integrative Biology and Earth and Planetary Sciences departments?</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t change it. It’s working fine the way it is now.</td>
<td>61%</td>
</tr>
<tr>
<td>Move one or more degree programs into Earth and Planetary Sciences.</td>
<td>23%</td>
</tr>
<tr>
<td>I have a different idea.</td>
<td>16%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Qualitative trends**

Overall, students seemed less concerned about which programs moved or stayed, but instead were concerned about how any changes would affect them in terms of course availability, modality, and opportunities for research, as well as sense of community and identity. Some students also cited the split of biology a few years ago being very confusing, as well as when ES merged with Biology, and worried that the mass confusion they felt then could happen again with another move.
Other students commented that they misunderstood the differences in the ES and EPS majors and felt having them together would help them understand choices and career paths earlier.

**Faculty and Staff Town Halls**

After receiving the first survey results, the Group agreed that holding sessions with faculty and staff would be a useful way to update them on the Group’s progress and get additional input and/or answer questions. The Group Facilitators attended the IB and EPS department meetings to lead these sessions and share high-level survey results and a list of preliminary notional models being studied by the Group (the same results shared in the Oct 27 Working Group Update). These preliminary notional models were identified based on input from the first survey, as well as from benchmarking peer models.

Both groups of faculty had questions around the logistical/operational aspects of potentially moving ES faculty from IB into EPS (resources, workload, faculty lines, tenure committees). These have been noted as potential impacts that would need to be considered carefully prior to any potential reconfiguration. There were also several questions about the steps that the Working Group had taken and its planned next steps.

**Student Town Hall**

Similar to the Faculty and Staff Town Halls, the Student Town Hall was held primarily to update students on the Working Group’s charge and progress, as well as to answer questions and get input. The list of preliminary notional models was also shared and explained. All students (undergraduate and graduate) in majors housed within IB and EPS were invited to attend.

The Student Town Hall was held in the COS Student Success Center. Identifying information about students was not recorded, but they were informally polled about their program affiliation. Most students were from EPS and were a combination of undergraduate and graduate students. Key themes identified during the session included:

- Confusion/frustration with similar courses existing as both ES and EPS offerings. Students did not seem clear on what courses they can register for outside of their program(s) and how/if those courses will satisfy their degree requirements (primarily at the undergraduate level).
- Discussion about opportunities for better research collaborations and career readiness (e.g., credential preparation) if ES and EPS were to merge.
- Concern about whether degree names/programs would change if a reconfiguration occurred.
The students were generally supportive of ES and EPS combining, or at least finding better ways to collaborate if they remained separate for enhanced interdisciplinarity.

Existing Data and Peer Models

While the first survey and town halls were occurring, the group continued meeting to review existing data and peer models. Dr. Lauren Apgar from UTSA’s Institutional Research office attended one of the meetings to give an overview of the IR dashboards and to demonstrate changes to IB and EPS data if ES were to move from the former to the latter. Existing data regarding enrollment trends (2018–2022) in the current IB and EPS departments was reviewed. Also, the degrees awarded (2013–2022) from IB, ES, EPS, and COS overall, broken down by academic year, race/ethnicity, degree level, and gender data was provided to the group. Fall-to-fall persistence rates (2018–2022) for UTSA, COS, and IB were also reviewed. Based on feedback from the Working Group, additional data was requested and provided regarding research expenditures by department (2021–2023), semester credit hours per department and course subject code (2018–2022), and faculty hires by department (2018–2023).

The group also spent time asynchronously reviewing departmental organizational models at peer institutions, including institutions both inside and outside of Texas. (A list of institutions consulted is available in Appendix C.) This list was populated by Working Group members as they researched other institutions’ websites. Links to each institution were added to a shared document for the rest of the group to review. Specific to IB, previous research had already been conducted in 2022 regarding other Integrative Biology departments. The Working Group received access to the Integrative Biology Department Task Force document, so the group incorporated those findings into its existing data repository rather than undertaking another formal benchmarking process.

Dr. Arturo Montoya, Associate Dean for Undergraduate Studies in KCEID, also attended a group meeting to share insights related to the planning, implementation, and operations of the school models used in KCEID. Though schools vary in terms of their organizational structure both withing KCEID and across UTSA, they usually consist of a faculty director, who functions similarly to a department chair. Each discipline in the school typically has a lead who consults with the director and handles matters such as planning and scheduling specific to the discipline area.

Faculty/Staff Survey 2: Notional Models

The second survey asked faculty and staff to consider notional models as identified by the Working Group and based on the results of the first survey.
Participants were asked to rank the models by their effectiveness in terms of student success, research excellence, teaching support, and overall preference. The graphs below show the rankings results by program area for overall preference. (See Appendix D for the full survey results.)

The survey was distributed to all IB and EPS faculty and staff (n=132), with a response rate (32%) that was similar to the first survey. Of those who responded, about 37% were affiliated with Environmental Science, 33% Biology, 26% Earth and Planetary Sciences, and 4% chose not to identify.

**Survey Question:** Regarding the models overall, number the selections below to rank these notional models from what you would most highly recommend (1) to what you would least likely recommend (7).
Note: Participants were not required to enter a ranking for all seven notional models, which is why there is variation across the models in the table above.
The survey also asked faculty/staff if there were any notional models they felt should be eliminated from consideration.

**Survey Question:** In reviewing these possible configurations, are there any that you think the Working Group should eliminate from consideration?
Student Survey 2: Notional Models

Students received a similar second survey, though the question about teaching was omitted. The overall results and the results of the elimination question are below. (See Appendix E for the full survey results.)

The survey was distributed to all IB and EPS students (n=2,798). The response rate was 1.3% (n=35), which was about half of the response rate of the first survey.

**Survey Question:** Regarding the models overall, number the selections below to rank these notional models from what you would most highly recommend (1) to what you would least likely recommend (7)

![Ranking Breakdown of Models - Overall (Student Survey Results)](image-url)
Survey Question: In reviewing these possible configurations, are there any that you think the Working Group should eliminate from consideration?

![Bar Chart: Models to Eliminate (Student Survey Results)]

Listening Sessions

In addition to deploying the second survey to gain input about possible notional models, the group decided to conduct listening sessions to continue dialogue and gather more qualitative reactions to the notional models. Meetings were offered for tenure/tenure-track (T/TT) faculty members, fixed-term track (FTT) faculty members, as well as students in both departments. Additional efforts were made to ensure IB students were included since the majority of student participants for the Town Hall had been from EPS. The listening sessions also served as an opportunity to provide additional information and clarification around the notional models, particularly the School model. Although School models vary at UTSA, it is an option available for consideration. The meetings verified that more information about the implications of a School model would be needed in order for individuals to either fully support or reject the School concept.

Faculty attendees expressed the need to better understand the effects of any possible changes such as promotion and tenure processes and DFRAC (review committee) structures, especially in relation to any type of school model. There was also a mention of the disparity in faculty rank/numbers between ES and EPS. In more than one meeting, groups expressed a desire to know what individuals in other disciplines saw as viable. There seemed to be a theme that a decision should not be made unilaterally. Any degree, discipline, or department that could be affected should be in future conversations to ensure that there is generally positive support for the decision(s). Although quantitative findings may
show support for particular notional models, the nuances associated with each proposal need to be understood to determine what individuals could accept versus readily support.

In addition, faculty participants provided insights into the change fatigue that the college may experience if more changes are implemented since several departmental changes were made in 2021. There was a concern expressed that not enough time has passed since the current configuration was created (IB, in particular) to determine if other changes are needed and if they would have any positive effects. Questions regarding the rationale for creating IB originally, the reasons for considering a change in organizational structure now, as well as what the desired success measures are for the department, were posed by participants. Additional concerns were raised that any synergies that have been created within the current IB department may be lost if ES becomes integrated elsewhere. Underscoring many of the faculty conversations has been a concern about not having adequate numbers of faculty to support each of the disciplines and not having the financial support to increase programs or research.

Students expressed frustration with how separate they perceive ES and EPS to be from each other and the potential negative impact on their careers and determining which field to study. They indicated disparities between different versions of the same course offered by different departments. They desire clear information about their degree requirements, options for taking courses in other departments, and are concerned about having the right coursework to achieve industry credentials (particularly within EPS) and be prepared for graduate programs across all majors. They seem to want more collaboration across IB (to include ES) and EPS. However, in line with the survey results, there was concern about merging the current departments into a larger department or school. They expressed concern about the possible dilution of their curriculum, and felt that having broader departmental or degree names, as examples, might not accurately reflect the rigor of the coursework they completed when being evaluated by employers.
All Notional Models: Risks and Opportunities

Gathering all of this input allowed the Working Group to identify opportunities/benefits and potential risks associated with each model. The remainder of this report 1) summarizes the opportunities and risks, 2) provides a recommendation of top models to consider and ones that can be eliminated from consideration, 3) notes “operational recommendations” that are not tied to a specific department configuration, and 4) identifies next steps and considerations for implementation.

First, based on all the information collected throughout this process, the group identified risks and opportunities associated with each notional model:

### Current Model

<table>
<thead>
<tr>
<th>Pros/Opportunities</th>
<th>Cons/Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General:</strong></td>
<td><strong>General:</strong></td>
</tr>
<tr>
<td>• Continue building on progress made since IB formed.</td>
<td>• Administrative challenges in IB due to size.</td>
</tr>
<tr>
<td>• Avoid change fatigue, less potential for conflict when new groups formed.</td>
<td>• EPS loses out on growth opportunities.</td>
</tr>
<tr>
<td><strong>Student Success:</strong></td>
<td><strong>Student Success:</strong></td>
</tr>
<tr>
<td>• Familiar with structure.</td>
<td>• Student confusion over similar courses that exist in EPS and ES that can affect career readiness.</td>
</tr>
<tr>
<td>• Per survey results, teaching is currently well supported in both IB &amp; EPS departments.</td>
<td>• Little overlap/integration of ES/EPS prior to upper division courses.</td>
</tr>
<tr>
<td>• More resources, wider breadth of courses available to IB students.</td>
<td></td>
</tr>
<tr>
<td><strong>Research Excellence:</strong></td>
<td><strong>Research Excellence:</strong></td>
</tr>
<tr>
<td>• ES staying in IB continues to support IB’s research mission, ES/Bio research synergies.</td>
<td>• Potential missed opportunities for ES/EPS research synergies and collaborations.</td>
</tr>
<tr>
<td>• More complete, broader biology discipline.</td>
<td></td>
</tr>
</tbody>
</table>
# Single Department Model

<table>
<thead>
<tr>
<th>Pros/Opportunities</th>
<th>Cons/Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General:</strong></td>
<td><strong>General:</strong></td>
</tr>
<tr>
<td>– Better curriculum collaboration and understanding of nuances</td>
<td>– Change fatigue and potential for conflict inherent in any reconfiguration</td>
</tr>
<tr>
<td><strong>Student Success:</strong></td>
<td>– Logistical/administrative changes in large department could become worse by becoming even larger department</td>
</tr>
<tr>
<td>– Increased resources and wider breadth of courses available to students</td>
<td><strong>Student Success:</strong></td>
</tr>
<tr>
<td>– Opportunity for more ES/EPS curriculum collaboration.</td>
<td>– Department identity may appear too broad and unfocused, which may not appeal to potential students and/or faculty hires</td>
</tr>
<tr>
<td>– Potential for better integration prior to upper division courses</td>
<td>– Potential for diluted sense of identity for EPS compared with current model</td>
</tr>
<tr>
<td><strong>Research Excellence:</strong></td>
<td>– Initial confusion among EPS students during transition from small department to mega department</td>
</tr>
<tr>
<td>– Greater, more consolidated resources and facilities</td>
<td><strong>Research Excellence:</strong></td>
</tr>
<tr>
<td></td>
<td>– Potential for conflict (e.g., who gets faculty lines)</td>
</tr>
<tr>
<td></td>
<td>– Difficult to have a single PhD program</td>
</tr>
</tbody>
</table>
### Combined ES and EPS Model

<table>
<thead>
<tr>
<th>Pros/Opportunities</th>
<th>Cons/Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General:</strong></td>
<td></td>
</tr>
<tr>
<td>• Opportunity to broaden offerings in ES/EPS.</td>
<td>• Sense of wasted effort on building IB</td>
</tr>
<tr>
<td>• Increased student enrollments for EPS.</td>
<td>• Change fatigue and potential for conflict inherent in any reconfiguration</td>
</tr>
<tr>
<td><strong>Student Success:</strong></td>
<td></td>
</tr>
<tr>
<td>• Increased student resources and wider breadth of courses available to ES/EPS students.</td>
<td>• Uncertainty about what happens to the Biology part of IB that remains in terms of mission, research.</td>
</tr>
<tr>
<td>• Opportunity for more ES/EPS curriculum collaboration.</td>
<td>• IB loses full breadth of biology (no longer integrative)</td>
</tr>
<tr>
<td>• Potential for better integration prior to upper division courses</td>
<td>• Decreased enrollments for Bio department</td>
</tr>
<tr>
<td><strong>Research Excellence:</strong></td>
<td></td>
</tr>
<tr>
<td>• Greater, more consolidated resources and facilities for ES/EPS.</td>
<td>• Potential for diluted sense of identity in ES/EPS</td>
</tr>
<tr>
<td>• Build critical mass of faculty/researchers in ES/EPS</td>
<td>• Bio students may lose opportunities with bulk of upper-division/graduate courses and research opportunities moving to EPS</td>
</tr>
<tr>
<td>• Potential for developing PhD program</td>
<td>• Initial confusion among ES students during transition from IB to EPS</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Research Excellence:</strong></td>
<td></td>
</tr>
<tr>
<td>• Potential missed opportunities for ES/Bio synergies and collaborations if they exist in separate department</td>
<td></td>
</tr>
</tbody>
</table>
### Independent Departments Model

<table>
<thead>
<tr>
<th>Pros/Opportunities</th>
<th>Cons/Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General:</strong></td>
<td><strong>General:</strong></td>
</tr>
<tr>
<td>• Smaller size may make administration of department more straightforward.</td>
<td>• Sense of wasted effort on building IB</td>
</tr>
<tr>
<td>• No change fatigue for current EPS department</td>
<td>• Change fatigue and potential for conflict inherent in any reconfiguration for ES/Bio</td>
</tr>
<tr>
<td><strong>Student Success/Research Excellence:</strong></td>
<td>• Uncertainty about what happens to the Biology part of IB that remains in terms of mission, research.</td>
</tr>
<tr>
<td>• Could allow for growth in each discipline.</td>
<td>• IB loses full breadth of biology (no longer integrative)</td>
</tr>
<tr>
<td>• Clearer, more focused identity, which may appeal to potential students and/or faculty hires</td>
<td></td>
</tr>
<tr>
<td><strong>Student Success:</strong></td>
<td><strong>Research Excellence:</strong></td>
</tr>
<tr>
<td>• Smaller departments could mean more limited resources, lack of course availability for students</td>
<td>• Lack of critical mass of faculty/researchers</td>
</tr>
<tr>
<td>• Initial confusion for ES/Bio students with single department splitting into two</td>
<td>• Potential missed opportunities for ES/Bio/EPS synergies and collaborations if they exist in separate departments</td>
</tr>
</tbody>
</table>
### School Model

<table>
<thead>
<tr>
<th>Pros/Opportunities</th>
<th>Cons/Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General:</strong></td>
<td><strong>General:</strong></td>
</tr>
<tr>
<td>• School model has been used in other Colleges across UTSA – opportunity to hear about successes and lessons learned from others who have implemented</td>
<td>• Given the variance that exists across schools at UTSA, need to determine more specific information surrounding roles, responsibilities, policies, and other logistics that factor into establishing a school</td>
</tr>
<tr>
<td>• Possible opportunity for named donor/funding</td>
<td>• Change fatigue and potential for conflict inherent in any reconfiguration</td>
</tr>
<tr>
<td>• Added organizational layer could help individual areas retain sense of identity while still being part of a larger unit</td>
<td>• Logistical/administrative changes in large department could become worse by including additional organizational layer compared to other models</td>
</tr>
<tr>
<td><strong>Student Success:</strong></td>
<td><strong>Student Success:</strong></td>
</tr>
<tr>
<td>• Increased resources and wider breadth of courses available to students</td>
<td>• School identity may appear too broad and unfocused, which may not appeal to potential students and/or faculty hires</td>
</tr>
<tr>
<td>• Reduce duplicate course offerings, less confusion for students</td>
<td>• Initial confusion among students during transition from department(s) to School</td>
</tr>
<tr>
<td><strong>Research Excellence:</strong></td>
<td><strong>Research Excellence:</strong></td>
</tr>
<tr>
<td>• Opportunity to achieve greater alignment across department(s), potential research collaborations</td>
<td>• Potential for conflict (e.g., who gets faculty lines)</td>
</tr>
<tr>
<td>• Greater, more consolidated resources and facilities</td>
<td></td>
</tr>
<tr>
<td>• Build critical mass of faculty/researchers</td>
<td></td>
</tr>
</tbody>
</table>

Note: When Survey 2 was distributed, the Working Group opted to include three variations of the “School Model”; when identifying opportunities and risks, the Group considered the School Model holistically.
Review of Notional Models

Based on the faculty, staff, and student input, it was clear that no single preference emerged across all areas. It should also be made clear that the Working Group spent a considerable amount of time reviewing all survey results, discussing the pros and cons, and sharing qualitative themes from all town halls and listening sessions. Although the second survey asked participants to rank notional models considering a variety of topics, the Working Group did not base their recommendations solely on the results of the second survey.

Broadly speaking, EPS faculty and staff favored a merger of ES and EPS programs into a single department or a school, with an important caveat being that broad buy-in among ES faculty would need to exist for the merger to succeed. Opinions were more mixed among Biology and ES faculty and staff, with some feeling strongly the IB department should remain as-is, at least for the time being, while others supported moving one or more programs. There was also some indication among ES faculty/staff that they would support becoming their own department. In the second survey, in which specific models were ranked, these findings remained largely consistent.

Students were also divided in their opinion, which was largely consistent with the overall faculty/staff survey results. Many EPS students indicated support during Town Halls and Listening Sessions of ES joining in EPS, though in the first survey, over 60% of all students indicated that their preference was for ES to remain in IB. Compared to faculty/staff, the students seemed a little less concerned about a specific configuration but were very concerned about the impact that any change would have on their degree progress, career preparedness, and sense of community.

Though more investigation needs to be conducted to fully understand how these configurations would function with the current IB and EPS departments, the surveys, town halls, and listening sessions helped the Working Group eliminate certain models from consideration so that future work can be focused on a smaller subset of notional models. The recommended models, as well as those found to be less viable, are discussed below.

Recommendations: Notional Models

The Working Group recommends that one of the following models be employed moving forward. A brief summary of their reasoning is included below, along with other models that did not seem to be as viable.
Top Notional Models

**Current Model** – There was a theme of change fatigue within the COS. In particular, it was expressed that IB has not had enough time to truly evaluate if the current configuration is achieving the desired outcomes since IB was only created in 2021. There also seem to be questions about why an organizational change is being considered. Continuing this model would allow the synergies between environmental science, ecology, biology, etc. to be further developed.

**Combined ES and EPS Department or School** – There is a lot of support for combining these areas based on the potential connections within the curriculum and the anticipated research synergies. The Working Group did not want to determine whether this would be a department or school model, and believes each configuration should be researched further as possible options for combining these two areas. Also, in this scenario, many concerns about the future direction and financial support for biology were expressed. If ES is no longer a part of IB, then the vision and direction for the future of IB would need to be defined in terms of the remaining degree programs, focus areas for the biology discipline, and research interests. This would have to be addressed to ensure a successful implementation.

Eliminated Models

**Independent Departments Model** – This model was generally ranked third and seemed to have traction particularly among some of the ES faculty/staff. Students also expressed positive thoughts about the merits of creating three separate departments if the resources, faulty, labs, etc. could be expanded. Working Group members also saw the merits of this model but felt several of the drawbacks and risks were significant enough that this one should be eliminated from further consideration.

**Combined IB and EPS Department or School** – The concept of some type of “mega department” or school was generally not well-received and not supported by survey results. Concerns about dilution of the curriculum/programs and a loss of identify were the major points. In conversations with stakeholders and the Working Group, this model did not gain traction or seem advantageous for anyone.

**IB School Model** – The feedback regarding this model seemed to indicate this would not be different enough from the current structure to warrant making a change. It could be that more information about the implications of a School model are needed to see if this option would better support Integrative Biology than the current departmental structure, but overall, there was not support from surveys or conversations with stakeholders for this model.
Recommendations: Overall

Although the Working Group was not able to identify a single notional model around which there is consensus among faculty, students, and staff in all affected departments, it contends that the information that was collected through the surveys, town halls, and listening sessions provides a more nuanced understanding of the concerns among faculty, staff, and students around different proposed notional models.

The group recommends that, as a next phase, an implementation group is convened to build on this group’s work by considering what implementing the narrowed list of notional models (Current Model and Combined ES/EPS – Department or School) would look like, impacts on stakeholders, and how success would be achieved and measured. Since one consistent point of feedback this group received was that respondents struggled to rank some of the models because they felt they didn’t have enough information or understanding of potential impacts, it is suggested that the implementation group focuses on envisioning how the two top models would be operationalized, including but not limited to factors such as tenure, hiring, budget, resources/facilities, and impacts on personnel. A particular group to be considered is the staff involved in the IB and EPS departments. Although staff were included in opportunities for feedback, it would be advisable to outline the impact of any decisions on staff to ensure adequate support, or additional support, for staff members is present.

Another theme throughout this process was the need for strategic planning/visioning regardless of the model selected. Obviously, if a model is employed that changes the current configuration, then strategic and operational planning will be needed. However, even if there are no organizational changes at this time, the group believes the affected departments would benefit from a visioning/re-visioning process. For example, from survey 1, an emergent theme was that there seemed to be some misunderstanding on all sides about what each department/discipline entails. Thus, a parallel goal may be to help seek and clarify a shared understanding of what each department does and what each one has to offer. In addition, from the first survey and other conversations, it seems there is an opportunity for growth even within the current model because the components of the IB department could be more integrated rather than co-existing, which would build on the progress that has already been made.

Related to the concepts of strategic planning and re-visioning the future of COS, another theme of “identity” was reiterated several times. Stakeholders and Working Group members alike expressed a desire to clarify the identity of these units and academic programs. Due to the amount of changes and evolution over the past few years (i.e., COVID adjustments, restructuring of the original Department of Biology, changes with the Department of Environmental Science & Ecology), it seems that stakeholders are searching for identity to reinforce their roles as teachers, researchers, employees, and students. Also, although it may seem minor, names for degree
programs and departments (or schools) are extremely important. Students agreed with this from both the perspective of searching for a particular program at UTSA, in addition to applying for jobs or graduate school with degree/department names that accurately reflect the rigor of nature of their programs of study. This would be a key component in reinforcing identity moving forward, as well.

**Specific to Student Success**

Regardless of proposed models, students were consistent in expressing frustration around similar courses being offered in different programs and struggles/confusion about the ability to take courses outside of their department. They also see discrepancies in labs and research opportunities, as examples, between disciplines/majors.

Building on the opportunity provided by this process to connect and share information across disciplines, the Working Group highly recommends increased coordination between IB and EPS to address student confusion surrounding degree program requirements. This could include faculty collaboration across disciplines, Department Curriculum Committee involvement, and/or College Curriculum Committee involvement, among other things. Then, clarification about this information and any changes resulting from this process needs to be clearly communicated to students. A key component to this is academic advising, and the group also suggests convening representatives from the applicable academic advising units to identify potential student information gaps to be addressed.

The idea of surveying Alumni from the degree programs across the IB and EPS departments was discussed by the Working Group but consensus was not reached about how many years of graduates to survey and the specific goals to be accomplished by a survey. However, this could be considered to gather input from graduates that might help inform the direction of these areas moving forward.

**Specific to Research Excellence**

Regardless of the organizational structure for the future, the Working Group recommends supporting avenues for greater interdisciplinary research. Faculty in the current IB department expressed positivity for the current research interactions that have resulted since ES joined Biology to create IB. In addition, faculty in the EPS department seemed to support the concept of increased research collaborations if EPS and ES were to merge into a combined area. Related to research excellence, there were also mentions of pursuing future doctoral degree programs within ES and/or EPS. In order to support this possibility, increased research support, additional funding, and resources for graduate students would have to be considered. As mentioned in relation to student success, an assessment of students’ access to research opportunities
could be conducted to ensure options are available and comparable across all majors.

Summary

The Working Group met its charge by gathering feedback from faculty, students, and staff members through a variety of ways to evaluate possible organizational models that would best support student success and research excellence within the College of Sciences. In particular, the group evaluated the proposal to combine the ES degrees with the EPS department, but the group also evaluated many other possible configurations. Looking diligently at the feedback received, existing data, and other institutional examples, the group did not find a clear consensus for direction and ultimately recommended two top models for further evaluation. The group recommends additional visioning process(es) to determine next steps. In addition, several operational improvements were identified that should be addressed regardless of the organizational model employed.
Appendix A: Quantitative Summary Results from Survey 1 (Faculty/Staff)

Q1 - Which program(s) do you primarily support? (Choose all that apply.)

- Environmental Science
- Biology
- Earth and Planetary Sciences
- Prefer not to answer

Q2 - How well is the current configuration of your department working for you in the following area?

The current configuration supports our students adequately.

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree
- NA
Q3 - How well is the current configuration of your department working for you in the following area?

The current configuration supports my teaching adequately.

Q4 - How well is the current configuration of your department working for you in the following area?

The current configuration supports my research adequately.
Q5 - Moving forward, choose the option you believe will work best:

Faculty/Staff Results by Discipline Area (as indicated by respondent) (n=49)

<table>
<thead>
<tr>
<th>Question: Moving forward, choose the option you believe will work best:</th>
<th>Biology</th>
<th>Environmental Science</th>
<th>EPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Keep the current configuration as-is. In this configuration, Integrative Biology would continue to encompass the biology, multidisciplinary science, and environmental science programs. Earth and Planetary Sciences would continue to function as a standalone department.</td>
<td>46%</td>
<td>29%</td>
<td>7%</td>
</tr>
</tbody>
</table>
| B. Move one or more degree programs into Earth and Planetary Sciences.  
  - BS in Multidisciplinary Science for Teaching  
  - BA in Environmental Studies  
  - BS in Environmental Science  
  - MS in Environmental Science | 33% | 33% | 80% |
| C. Other | 21% | 38% | 13% |
| Total | 100% | 100% | 100% |
Appendix B: Quantitative Summary Results from Survey 1 (Students)

Q1 - What program are you in? (Select all that apply.)

Q2 - How satisfied are you with the support you are currently receiving in the following area?

I am satisfied with the student success support (e.g., research experience, course offerings) that I am currently receiving.
Q3 - How satisfied are you with the support you are currently receiving in the following area?

I am satisfied with the student experience (e.g., support, student organizations) that I am currently receiving.

Q4A - To best support your academic success, which of the following do you think would work best for the Integrative Biology and Earth and Planetary Sciences departments?

Q4B - Based on your last answer, which of the following degree programs should be moved into Earth and Planetary Sciences? (Choose all that apply.)

*Admin Note: This question was only displayed to users who selected “B” in Q4.
Appendix C: List of Peer Comparisons

**Brown**
Earth, Environmental and Planetary Sciences
This one is very geology-dominated.

**Cleveland State University**
Biological, Geological, and Environmental Sciences

**Drexel**
Biodiversity, Earth & Environmental Science
This one is very environmental-dominated.

**Pittsburgh**
Department of Geology and Environmental Sciences
This one spans environmental science, geology, and planetary science, and is known for remote sensing. Pitt also includes a Climate and Global Change Center, and the Pittsburgh Collaboratory for Water Research, Education, and Outreach.

**Rice University**
Earth, Environmental, and Planetary Sciences
Department of BioSciences

**Rutgers University**
School of Environmental and Biological Sciences (SEBS)

**UC Davis**
Earth and Planetary Sciences
College of Biological Sciences

**UC Riverside**
Earth and Planetary Sciences
Evolution, Ecology, and Organismal Biology

**UC Santa Cruz**
Earth and Planetary Sciences
Ecology and Evolutionary Biology

**University of Michigan**
Department of Earth and Environmental Sciences
Program in Biology: made up of two departments: the Ecology and Evolutionary Biology Department (EEB) and the Molecular, Cellular, and Developmental Biology (MCDB) Department

University of Minnesota
Department of Biology Teaching & Learning
Department of Ecology, Evolution, & Behavior
College of Biological Sciences

University of Southern Mississippi
School of Biological, Environmental and Earth Sciences

University of Tennessee
Earth and Planetary Sciences
Biological Sciences

UT Arlington
Department of Earth and Environmental Sciences
Department of Biology

UTEP
Department of Earth, Environmental and Resource Sciences
Department of Biological Sciences

UTRGV
School of Earth, Environmental, and Marine Sciences (SEEMS)

Vanderbilt University
Department of Earth and Environmental Sciences
Department of Biological Sciences

Washington University, St. Louis
Earth, Environmental, and Planetary Sciences
Biology Department
Division of Biology and Biomedical Sciences

School Models at UTSA

COLFA Interdisciplinary School for Engagement or “E School”:
https://colfa.utsa.edu/interdisciplinary/index.html

KCEID School of Architecture and Planning: https://klesse.utsa.edu/architecture-planning/
KCEID School of Civil & Environmental Engineering, and Construction Management: https://klesse.utsa.edu/civil-environmental-construction-management/

School of Data Science: https://sds.utsa.edu/about/
Appendix D: Detailed Results from Survey 2 (Faculty/Staff)

Q1 - Which program(s) do you primarily support? (Choose all that apply.)

<table>
<thead>
<tr>
<th>Program</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Science</td>
<td>37%</td>
<td>19</td>
</tr>
<tr>
<td>Biology</td>
<td>33%</td>
<td>17</td>
</tr>
<tr>
<td>Earth and Planetary Sciences</td>
<td>26%</td>
<td>13</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>4%</td>
<td>2</td>
</tr>
</tbody>
</table>

Q2 - Which models do you think best support student success? Number the selections below to rank these notional models from what you believe best supports students (1) to what you believe least supports students (7).

<table>
<thead>
<tr>
<th>Ranking Breakdown of Models - Student Success</th>
<th>Ranking Breakdown of Models - Student Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ES Faculty/Staff)</td>
<td>(Biology Faculty/Staff)</td>
</tr>
<tr>
<td>Current Model</td>
<td>Current Model</td>
</tr>
<tr>
<td>Single Dept. Model</td>
<td>Single Dept. Model</td>
</tr>
<tr>
<td>Combined ES &amp; EPS</td>
<td>Combined ES &amp; EPS</td>
</tr>
<tr>
<td>Independent Depts</td>
<td>Independent Depts</td>
</tr>
<tr>
<td>IB School</td>
<td>IB School</td>
</tr>
<tr>
<td>ES &amp; EPS School</td>
<td>ES &amp; EPS School</td>
</tr>
<tr>
<td>Bio, ES, and EPS School</td>
<td>Bio, ES, and EPS School</td>
</tr>
</tbody>
</table>

Legend:
- 1st place rankings
- 2nd place rankings
- 3rd place rankings
- 4th place rankings
- 5th place rankings
- 6th place rankings
- 7th place rankings
Q3 - Which models do you think best support research excellence? Number the selections below to rank these notional models from what you believe best supports research excellence (1) to what you believe is least supportive of research excellence (7).

![Research Excellence Model Rankings](image1)

Q4 - Which models do you think best support teaching? Number the selections below to rank these notional models from what you believe best supports teaching (1) to what you believe is least supportive of teaching (7).

![Teaching Model Rankings](image2)
Q5 - Regarding the models overall, number the selections below to rank these notional models from what you would most highly recommend (1) to what you would least likely recommend (7).

Q6 - In reviewing these possible configurations, are there any that you think the Working Group should eliminate from consideration? Select any that apply and please explain your selections in the corresponding text boxes.
Appendix E: Detailed Results from Survey 2 (Students)

Q1 - Which program(s) do you primarily support? (Choose all that apply.)

<table>
<thead>
<tr>
<th>Program</th>
<th>%</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS in Biology</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>BS Multidisciplinary Studies for Teaching</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BA Environmental Studies</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BS Environmental Science</td>
<td>31</td>
<td>10</td>
</tr>
<tr>
<td>MS Biology</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>MS Environmental Science</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>BS Geosciences</td>
<td>28</td>
<td>9</td>
</tr>
<tr>
<td>BA Geosciences</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>MS Geoinformatics</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>MS Geosciences</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>PhD Environmental Science and Engineering</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Q2 - Which models do you think best support student success? Number the selections below to rank these notional models from what you believe best supports students (1) to what you believe least supports students (7).

[Diagram showing ranking breakdown of models]
Q3 - Which models do you think best support research excellence? Number the selections below to rank these notional models from what you believe best supports research excellence (1) to what you believe is least supportive of research excellence (7).

Q4 - Regarding the models overall, number the selections below to rank these notional models from what you would most highly recommend (1) to what you would least likely recommend (7).
Q5 - In reviewing these possible configurations, are there any that you think the Working Group should eliminate from consideration? Select any that apply and please explain your selections in the corresponding text boxes.

![Models to Eliminate (Student Survey Results)]