

Dr. Lauren B. Birney Ed. D
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I. Education

University of Southern California; Rossier School of Education (Los Angeles, CA) Doctor of Education; Educational Leadership	1998
Point Loma Nazarene College (San Diego, CA) Master of Science, Counseling Teaching Certificate for Secondary Science Teaching (Grades 7-12) CA Counseling Credential (Grades K-12) CA Administrative Credential (Grades K-12) CA	1990
Oxford University; Saint Clare's University (Oxford, England UK) Liberal Arts Independent Study	1989
University of San Diego (San Diego, CA) Bachelor of Science; Biology, Chemistry	1988

II. WORK EXPERIENCE

Professor STEM Education School of Education, Pace University New York, New York	2007 - Present
Executive Director, The STEM Collaboratory NYC® Pace University, New York, New York	2012- Present
Advisory Council – The New York Edge	2020- Present
Board Chair President/Board of Directors The Biomimicry Institute, San Francisco, California	2017-2023
Secondary Science Teacher/STEM Internship Coordinator Department Chairperson San Diego Unified School District Hoover High School City Heights Collaborative San Diego, CA	1990- 2007
Core Adjunct Professor, Division of Teacher Education Chapman University, National University, San Diego State University Summer Bridges Program; San Diego, CA 2007	1998 –

III. RESEARCH INTERESTS

**Environmental Restoration Science through Citizen Science;
Collaborative Educational Models K-16**

**Experiential Project-Based Learning for University Students in K-16
STEM Initiatives, Climate Change**

**STEM multi-nationals funding support and their Impact on the STEM
National Movement K-16**

IV. PUBLICATIONS

Peer Reviewed and Refereed Scholarly Journal Articles

Birney, L., & McNamara, D. (2024) The Curriculum and Community Environmental Restoration Science (STEM + Computer Science) Project – Attaining a STEM mindset through improved technological ability, Journal of Curriculum of Teaching, Volume 13. No. 1, <https://doi.org/10.5430/jct.v13n1p394>

Birney, L., & McNamara, D., (2024) The Benefits of Informal Learning Garnered Through Participation in the Curriculum and Community Environmental Restoration Science (STEM + Computer Science) Project, Journal of Curriculum and Teaching, Volume 13, No 2, DOI: <https://doi.org/10.5430/jct.v13n2p244>

Birney, L., & McNamara, D. (2024) Students’ Self-Efficacy and Confidence in Technological Abilities Resulting from Participation in “The Curriculum and Community Environmental Restoration Science (STEM + Computer Science).”, Journal of Curriculum of Teaching, Volume 13. No. 1, DOI <https://doi.org/10.5430/jct.v13n1p24>

Birney, L., Evans, B., Mojica, E., Scharff, C., Kong, J., Solanki, V., (2024) The Billion Oyster Project and Curriculum and Community Enterprise for Restoration Science Curriculum: Summary of STEM+C and ITEST Program Impacts on NYC Teachers and Student, Journal of Curriculum and Teaching, Volume 13, No.2, <https://doi.org/10.5430/jct.v13n2p361>

Birney, L., & McNamara, D. (2023) The Curriculum and Community Enterprise for Restoration Science (STEM +C): Blending Social Justice Engagement with Academic Instruction to Help Pique Student Interest in Environmental Restoration and Urban Renewal, Journal of Curriculum and Teaching, Volume 12, No. 6, <https://doi.org/10.5430/jct.v12n6p26>.

Birney, L., Evans, B., Solanki, V., Mojica, E., Scharff, C., & Kong, J., (2023) The Billion Oyster Project and Curriculum and Community Enterprise for Restoration Science Curriculum: ITEST Program Impacts on NYC School Student Scientific Identity, Journal of Curriculum and Teaching; 12 (4) 124. DOI: [10.5430/jct.v12n4p125](https://doi.org/10.5430/jct.v12n4p125)

- Birney, L.** & McNamara, D. (2023) The Effect of the CCERS STEM + C Project on Information Technology Efficacy in Terms of Gender and Grade Level, *Journal of Curriculum and Teaching*, Vol 12, No. 3 pp 81-90. DOI: <https://doi.org/10.5430/jct.v12n3p81>
- Birney, L.**, Evans, B., Solanki, V., Mojica, E., Scharff, C., & Kong, J., (2023) The Billion Oyster Project and Curriculum and Community Enterprise for Restoration Science Curriculum: STEM+C Summer Institute Experiential Learning, *Journal of Curriculum and Teaching*, Vol 12, No. 3 pp 207-215. DOI: <https://doi.org/10.5430/jct.v12n3p207>
- Birney, L.**, & McNamara, D., (2022) The Curriculum and Community Enterprise for Restoration Science Making STEM Accessible, Equitable and Environmentally Relevant, *Journal of Curriculum and Teaching*, Vol 11, No. 2 pp 56-65. DOI: <https://doi.org/10.5430/jct.v11n2p56>
- Birney, L.**, & McNamara, D., (2022) CCERS STEM + C – Emphasis on the Professional Learning of the Classroom Teachers – Expansion of the Pillar, *Journal of Curriculum and Teaching*, Vol 11, No. 4 pp 210-223. DOI: <https://doi.org/10.5430/jct.v11n4p210>
- Birney, L.**, Evans, B., Kong, J., Solanki, V., & Mojica, E. (2022) The Billion Oyster Project and Curriculum and Community Enterprise for Restoration Science Curriculum: The Digital Platform and Student Symposium Presentations, *Journal of Curriculum and Teaching*. Vol 11, No. 8 pp 53-62. DOI: <https://doi.org/10.5430/jct.v11n8p53>
- Birney, L.**, & McNamara, D., (2022) The Curriculum and Community Environmental Restoration Science (STEM + Computer Science) Remote Learning Curriculum Use and Evaluation, *Journal of Curriculum and Teaching*, Vol 11, No. 5 pp 252-263. DOI: <https://doi.org/10.5430/jct.v11n5p252>
- Birney L.**, Evan, B., Kong, J., Mojico, E., Solanki V., and Scharff, C. (2022) The Billion Oyster Project and Curriculum and Community Enterprise for Restoration Science Curriculum Impact on Teacher Engagement. *Journal of Curriculum and Teaching*. Vol 11, No. 4 pp 53-61. DOI: <https://doi.org/10.5430/jct.v11n4p53>
- Birney, L.**, McNamara, D., (2021) Tackling Problem Solving through the Curriculum and Community Enterprise for Environmental Restoration Project, *Journal of Curriculum and Teaching*, Vol 10, No. 3 pp 2-10. DOI: <https://doi.org/10.5430/jct.v10n3p1>
- Birney, L.** & McNamara, D., (2021) Green Job Opportunities through the Curriculum Enterprise for Restoration Science in New York City, *Journal of Education and Development*, v5 n2 pp 54-65. DOI: <https://doi.org/10.20849/jed.v5i2.920>
- Birney, L.** & McNamara, D. (2021) The Curriculum and Community Enterprise for Restoration Science: Engaging Marginalized Students in STEM Fields through Data Acquisition and Computational Thinking, *Journal of Curriculum and Teaching*, Vol. 10, No. 4 <https://doi.org/10.5430/jct.v10n4p82>
- Birney, L.**, Evans, B. R., Kong, J., Solanki, V., Mojica, E.-R., Scharff, C., Kondapuram, G., &

Kaoutzanis, D. (2021). The Billion Oyster Project and Curriculum and Community Enterprise for Restoration Science impact on underrepresented student motivation to pursue STEM careers. *Journal of Curriculum and Teaching*, 10(4), 47-54.

Birney, L., Evans, B. R., Kong, J., Solanki, V., Mojica, E.-R., Kondapuram, G., & Kaoutzanis, D. (2021). Undergraduate and graduate student research in STEM Education. *Journal of Curriculum and Teaching*, 10(1), 29-35.

Judith O'Neil, Amy Green, Anne Fraioli, Bart Merrick, Elisa Bone, Gaylen Moore, **Lauren Birney**, Robert Newton, Tina Goodwin-Segal. *Regional Studies in Marine Science; Using Urban Harbors for Experiential, environmental literacy: Case Studies of New York and Chesapeake Bay*; Elsevier. Volume 33, January 2020, 100922. <https://doi.org/10.1016/j.rsma.2019.100922>

Birney, L., Evans, B., Kong, J., & Danker, M., Ceritelli, S., (2019) Experiential and Real-World Learning for Science Teachers in the Billion Oyster Project and Curriculum and Community Enterprise for the Restoration of New York Harbor with NYC Public Schools Program v7 n2 p20-26.

Birney, L., McNamara, D., (2019). The Curriculum and Community Enterprise for Restoration Science S.T.E.M. + Professional Learning Model: Expansion and Enhancement, Vol. 8, No. 3., August 2019 <https://doi.10..5430/jct.v8n3p122>

Birney, L., McNamara, D., Evans, B., Woods, N., & Hill, J. (2019). The Curriculum and Community Enterprise for Restoration Science Partnership Model, *Journal of Curriculum and Teaching*, Vol. 8, No. 2, [doi: 10.5430/jct.v8n2p1](https://doi.org/10.5430/jct.v8n2p1)

Birney, L., & Cronin, J., (2018) Environmental Habitat Restoration and Inquiry Based Learning with New York City Public Schools - An Urban Model in STEM Education, *Journal of Environmental Studies and Sciences*, *Journal for Environmental Studies and Sciences*, December. [doi:10.1007/s13412-018-0530-5](https://doi.org/10.1007/s13412-018-0530-5)

Birney, L., McNamara, D., Sanders, C., Luintel, H., & Penman, J. (2018) Curriculum and Community Enterprise for Restoration Sciences: The Expansion and Future of the Model, *International Research in Higher Education*, Vol. 3, No. 4, [doi:10.5430/irhe.v3n4p](https://doi.org/10.5430/irhe.v3n4p)

Birney, L. & McNamara, D. (2018) Computational Thinking Integration Strategy for the Urban Middle School Classroom, *International Research in Higher Education*, 3 (3), [doi:10.5430/irhe.v3n3p51](https://doi.org/10.5430/irhe.v3n3p51)

Birney, L. & McNamara, D. (2018) Advanced Placement Environmental Science and the Curriculum and Community Enterprise for Restoration Science (CCERS) Project in New York City, *Journal of Curriculum and Teaching*, Vol. 7, No. 1, [doi:10.5430/jct.v7n1p7](https://doi.org/10.5430/jct.v7n1p7)

Birney, L., Kong, J., & Evans, B. Danker, M. & Persaud, A. (2018). Teachers Mentoring Teachers in the Billion Oyster Project and Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools (BOP-CCERS) Fellowship *Journal of*

Curriculum and Teaching; 7 (2)20-26.

Birney, L., & McNamara, D., (2017) Authentic Community Based Learning in New York City: An Holistic Model using the Billion Oyster Project and Curriculum and Community Enterprise for Restoration Science 6 (4) ISSN 2334-296X (Print) 2334-2978 (Online) | DOI: 10.15640/jehd.

Birney, L. & McNamara, D. (2017) Science Curriculum Content for Real World Application, International Journal of Education and Social Science, Vol. 4, No. 6, www.ijessnet.com

Birney, L., Kong, J., & Evans, B. Danker, M. & Greiser, K. (2017). Microteaching: An Introspective Case Study with Middle School Teachers in New York City Public Schools. Journal of Curriculum and Teaching; 6 (2) ISSN 1927-2677 (Print) ISSN 1927-2685 (Online) DOI: <https://doi.org/10.5430/jct.v6n2p1>.

Birney, L., & McNamara, D. (2017). Science Curriculum for Real World Applications. International Journal of Education and Social Science; 4 (6) 13-18, ISSN 2415-1246 (Print), ISSN 2410-5171 (Online)

Birney, L. Facilitating Teaching and Learning for Environmental Restoration through Citizen Science. Connected Science Learning. 2017 3 (3) /<http://csl.nsta.org/> ISSN: 2475-8779

Birney, L., & McNamara, D. (2017). Culturally Responsive Science Education - The New York City Classroom - An increasingly diverse population. American International Journal of Humanities and Social Science, 3 (2) 37-40. ISSN 2415 1424 (Print) ISSN 2415 1270 (Online) Ref-A-1-1362

Birney, L.B., & Watson-Currie, E. & Jha, K. (2017). Curriculum and Community Enterprise for the Restoration of New York Harbor in New York City Public Schools. Radical Pedagogy, 14(1). doi:10.1016/S0742 Retrieved from <http://www.radicalpedagogy.org/birneyetal.html>

Birney, L.B., & Janis S.P. (2016). Expanding Access and Deepening Engagement: Building an Open Source Digital Platform for Restoration-Based STEM Education in the Largest Public -School System in the United States. Journal of Modern Education Review, 11(6), 785-791. doi: 10.15341/jmer(2155-7993)/11.06.2016/

Molina, M., Watson-Currie, E. & **Birney, L.** (2016). Development of the Curriculum and Community for Enterprise for Restoration Science: A Formative Model Educational Partnerships, Psychology Research, 6(8), 466-472. doi:10.17265/2159-5542/2016.08.004

O'Neil, J.M., Tallie, D., Walsh, B., Dennison, W.C., Bone, E.K., Reid, D.J., Newton, R., Strayer, D.L., Boicourt, K., **Birney, L.B.,** Janis, S., Malinowski, P., & Fisher, M. (2016). New York Harbor: Resilience in the Face of Four Centuries of Development. Regional Studies in Marine Science, 8(2), 274-286. <http://dx.doi.org/10.1016/j.rsma.2016.06.004>

Janis, S.P., **Birney, L.B., & Newton, R.,** (2016). Billion Oyster Project: Linking Public School Teaching and Learning to the Ecological Restoration of New York Harbor Using Innovative

Applications of Environmental and Digital Technologies. International Journal of Digital Contents Technology and its Applications, 10(1). Retrieved from <https://par.nsf.gov/servlets/purl/10020749>

Birney, L.B. & Janis, S. (2014, December). Environmental Restoration through Teaching and Learning. Brite Innovation Review, 17-20. Retrieved <http://viewer.zmags.com/publication/22f8b36c#/22f8b36c/17>

Birney, L.B., Hill, J.H., & Kline, R.L. (2014, March). Experiential Project Based Learning for University Students in K-12 STEM Initiatives. Paper presented at IEEE Integrated STEM Education Conference, Princeton, NJ. <http://ieeexplore.ieee.org/document/6891028/>

Refereed Monographs, Book Chapters, Abstracts and Conference Proceedings

Birney, L., (2022, December) Summer STEM Institute in Environmental Science and Data Science for Middle and High School Student at Pace University, Abstract and Poster presented at Ecosystems, Environment and Sustainable Development, Auckland, New Zealand.

Birney, L., (2022, Cairo) Environmental Restoration Science in New York Harbor - Community Based Restoration Science Hubs, or "STEM Hubs"; Abstract and Poster presented at Education, Digitalization, and Sustainability, Cairo, Egypt.

Birney, L., (2022, November) Near-Peer Mentoring/Curriculum and Community Enterprise for Environmental Restoration Science, Abstract and Poster presented at Educational Environment and Learning Analytics, Venice, Italy.

Birney, L., (2022, October) Modeling the Human Harbor: An Equity Project in New York City, New York USA., Abstract and Poster Presented at Equality, Diversity and Inclusion, Paris, France.

Birney, L., (2022, October) Expanding Access and Deepening Engagement: Building an Open Source Digital Platform for Restoration Based STEM Education in the Largest Public-School System in the United States, Abstract and Poster presented at Educational Policies and Learning Systems, New York, New York.

Birney, L., (2022, September) Creating an Impact through Environmental Law and Policy with a focus on Environmental Science Restoration with Social Impacts, Abstract and Poster presented at Instructions and Effective Education Strategies, Dubai, UAE.

Birney, L., (2021, March) Integrating Environmental Restoration with Computer Science in New York Harbor with New York City Public Schools, Abstract and Poster presented at Primary Education and Skills Development, Istanbul, Turkey.

Watson-Currie, E., **Birney, L.**, Penman, J., & Moore, G., Breton, K., Caref, E., & Krane, L. (2017, June) Diversity and Inclusion of All Students - Curriculum + Community Enterprise for Restoration

Science (CCERS): Using Oyster Restoration in New York Harbor to Enhance STEM-C Education, Abstract and Poster presented at Global Minded, Denver, Colorado

Watson-Currie, E., **Birney, L.**, Penman, J., & Moore, G., (2017, June) Curriculum + Community Enterprise for Restoration Science (CCERS): Using Oyster Restoration in New York Harbor to Enhance STEM-C Education, Abstract and Poster presented at Science of Team Science, Clearwater Beach, FL.

DiMeglio, S. Kline, R., Mojica, E., Zapata, J., **Birney, L.**, (2017, April) Visualization of Environmental Data for The Billion Oyster Project. Abstract and Poster presented at the Consortium for Colleges for Computing Sciences in Colleges Conference, Albany, New York.

Zapata, J., Jones, E., Kline, R., DiMeglio, G., Elmer-Rico E. Mojica, E.R.E., & **Birney, L.** (2017, April). Monitoring the Water Quality of Selected Billion Oysters Project (BOP) Restoration Sites. Abstract and Poster presented at American Chemical Society Conference, San Francisco, CA.

Birney, L. Hartry, A., Kern, A., Bertram, K., Kenezek, G., & Sibuma, B. (2017, April). Using (G) Locally Relevant Authentic Inquiries to Engage Youth in Environmental Science Topics Out-of-School (S-1010422- 5459). Abstract presented at the meeting of the National Association of Research in Science Teaching (NARST), San Antonio, TX.

Watson-Currie, E., **Birney, L.**, Penman, J., & Moore, G., (2017, March) Curriculum + Community Enterprise for Restoration Science (CCERS): Using Oyster Restoration in New York Harbor to Enhance STEM-C Education, Abstract and Poster presented at Understanding Interventions that Broaden Science Careers, San Antonio, TX.

Birney, L. & Watson-Currie, E. (2016, December). Curriculum + Community Enterprise for Restoration Science (CCERS): Diverse Teams Collaborate on Middle School Curriculum with Hands-on STEM-C Projects in New York Harbor. Poster presented at Restore America's Estuaries 8th National Summit on Coastal and Estuarine Restoration and 25th Biennial Meeting of The Coastal Society: Our Coasts, Our Future, Our Choice, New Orleans, LA.

Birney, L., Watson, E. & Molina, M. (2016, May). Curriculum and Community for the Restoration of New York Harbor with New York City Public Schools. Poster presented at the meeting of Science of Team Science, Phoenix, AZ.

https://sts.memberclicks.net/assets/2016_Presentations/scits%20poster%20-%20erica-quantitative.pdf

Birney, L., Watson, E. & Molina, M. (2016, April). Curriculum and Community for the Restoration of New York Harbor with New York City Public Schools. Poster presented at the meeting of the National Association for Research in Science Teaching (NARST), Baltimore, MD.

Newton, R., **Birney, L.**, Janis, S., Groome, M., Palmer, M., Bone, E., O' Neil, J., Hill, J., Dennison, W., Malinowski, P., Kohne, L., Molina, M., Moore, G., & Woods, N. (2015, December). Restoration Science in New York Harbor: It takes a (large, diverse and engaged) village. Abstract presented at American Geophysical Union Conference, San Francisco, CA.

Clayton, C., Kilbane, J., **Birney, L.**, McCarthy, M., Kava, B. & Kass, J. (2014, April). Facilitating the Tilt – Reflections on Professional Development that Promotes Inquiry in High Stakes Times. Paper presented at the meeting of American Educational Research Association, Philadelphia, PA.

Books, Professional Development Curricula, and Other Resources

Robinson, N, Kakar, N & et.al, Fulfilling the Sustainable Development Goals (2021) Prosperity; STEM Education: Environmental Restoration Science in New York Harbor; Taylor and Francis Routledge; Abingdon, UK

CCERS and Billion Oyster Project Field Science Guide (2014- 2020) “Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools” NSF DRL 1440869, New York, NY

Birney, L. B. (2012) [A Practical Guide to Action Research in Education”] Efrat Efron, S. and Ravid, R. Guilford Press; New York, NY

Fisher, D. & Frey, N. (2007) *Improving Adolescent Literacy: Content Area Strategies at Work* (**Birney, L., Chapter 4**). Upper Saddle River, NJ: Merrill Education/Prentice Hall

Ryan, M. (2003) Ask the Teacher: A Practitioners Guide to Teaching and Learning in the Diverse Classroom [**Review of the book; Birney, L. B.**] Pearson; New York, NY

Technical Reports and Other Non-Refereed Writings

Birney, L., and BOP CCERS Team., *Curriculum and Community Enterprise for the Restoration of New York Harbor – A Model for Collaborative Partnerships [White Paper] Manuscript in Press (2024) NSF EHR STEM +C 1839656*

Birney, L., and BOP CCERS Team., *Curriculum and Community Enterprise for the Restoration of New York Harbor – A Model for Collaborative Partnerships [White Paper] (2023) NSF ERH ITEST 1759005*

Birney, L., and Penman J., *Curriculum and Community Enterprise for the Restoration of New York Harbor – A Model for Collaborative Partnerships [White Paper] Manuscript in Press*

Pace University School of Education Faculty. (2017). Recommended Changes to New York State Teacher Certification Requirements [White paper]. Manuscript presented to New

York State.

Birney, L. (2016) Manuscript ID SO-15-0399 Student-Teacher Interaction in Public Schools in Lebanon: A Symbolic Interactionist Perspective In Grade Six Classes. Sage Open Publications, Thousand Oaks, CA (Invited Editor)

Birney, L. (2016). The World of STEM Subjects is Your Oyster. International Innovation, 1-3. Retrieved <http://circl.sri.com/archive/2016/news/Birney-NYC-Harbor-Oyster-Project.pdf>

(In Preparation) Birney L., McNamara, D. & Kong, J. (2026) *Laboratory Science Manual for Inner City School Teachers. Laboratory Manual, Pace University School of Education New York, NY: Sage Publications*

(In Preparation) Birney L., McNamara, D. & Kong, J. (2027) *STEM Career Guide Pace University School of Education New York, NY: Sage Publications*

V. EDITORIALS, REVIEWS, AND INTERVIEWS

Birney, L. *Principal Investigator* (2018 – 2024) Curriculum and Community Enterprise for the Restoration of New York Harbor. Annual Report presented to the National Science Foundation, EHR DRL 1839656 REU. Washington, DC (STEM +C)

Birney, L. *Principal Investigator* (2018 - 2024) Curriculum and Community Enterprise for the Restoration of New York Harbor. Annual Report presented to the National Science Foundation, EHR DRL 1839656. Washington, DC (STEM+C)

Birney, L. *Principal Investigator* (2018 – 2023) Curriculum and Community Enterprise for the Restoration of New York Harbor. Annual Report presented to the National Science Foundation, EHR DRL 1759006. Washington, DC (ITEST)

Birney, L. *Principal Investigator* (2016-2020). “Curriculum and Community Enterprise for New York Harbor Restoration in New York City Public Schools”. Annual Report presented to the National Science Foundation, EHR DRL 156003. Washington, DC

Birney, L. *Principal Investigator* (2016 - 2020). Smart and Connected Communities “Expanding Access and Deepening Engagement: Building an Open Source Digital Platform for Restoration-Based STEM Education in the Largest Public-School System in the United States” EHR DRL REU 1643116 Washington, DC

Birney, L. *Principal Investigator* (2015 - 2020). Curriculum and Community Enterprise for the Restoration of New York Harbor. Annual Report presented to the National Science Foundation, EHR DRL 1440869. Washington, DC (Math Science Partnerships)

VI. PROFESSIONAL PRESENTATIONS

A. International Presentations

Birney, L., (2024, September) New York City Climate Week; The New York Climate Exchange; “It’s Not Easy Being Green – New Engagement Strategies to Drive Green Economic Transformation; European Bank for Reconstruction and Development; Invited Presentation, Management of Global Issues in an Urban Setting, New York, New York. Global Audience. Invited Panel by The New York Climate Exchange, New York, New York.

Birney, L., (2024, September) Work on Climate, Clean Tech Design Summit; Advanced STEM Tech Working Group. New York Liberty Plaza, New York, New York. (Invited)

Birney, L. (2023, September) “Integrating Environmental Restoration with Computer Science in New York Harbor with New York City Public Schools” Billion Oyster Project Curriculum and Community Enterprise for Restoration Science (BOP-CCERS) STEM +C Phase III/ PI Lauren Birney; Rome, Italy.

Birney, L. (2021, December) “Billion oyster project curriculum and community enterprise for restoration science (BOPCCERS) proposal for phase II expansion; career and technical Education Pathways”, 2021 2nd International Symposium on Water, Ecology and Environment (ISWEE 2021) Beijing, China.

Birney, L. (2021, December) “Billion Oyster Project Curriculum and Community Enterprise for Restoration Science (BOPCCERS) Phase II Career and Technical Education Pathways – STEM Careers in Environmental Restoration Sciences”, **Keynote Speaker by Invitation**, Eurasia Research (TERA 2021) Bali, Indonesia

Birney, L. (2021, November) Integrating Environmental Restoration with Computer Science in New York Harbor with New York City Public Schools Billion Oyster Project Curriculum and Community Enterprise for Restoration Science (BOP-CCERS) STEM +C Phase III, **Keynote Speaker by Invitation**, Eurasia Research (TERA 2021) Paris, France

Birney, L. (2021, October) “Billion Oyster Project Curriculum and Community Enterprise for Restoration Science (BOPCCERS) Phase II Career and Technical Education Pathways – STEM Careers in Environmental Restoration Sciences” International Conference on Science and Technology Education (STE 2021) Porto, Portugal

Birney, L. (2021, October) “Billion Oyster Project Curriculum and Community Enterprise for Restoration Science (BOPCCERS) Phase II Career and Technical Education Pathways – STEM Careers in Environmental Restoration Sciences” International Symposium on Water, Ecology and Environment, (ISWEE 2020) Beijing, China

Birney, L. (2021, May) “Integrating Environmental Restoration with Computer Science in New York Harbor with New York City Public Schools Billion Oyster Project Curriculum and Community Enterprise for Restoration Science (BOP-CCERS) STEM +C Phase III”, Eurasia Research (TERA 2021) Berlin, Germany

Birney, L. (2021, May) “Billion Oyster Project Curriculum and Community Enterprise for Restoration Science (BOPCCERS) Phase II Career and Technical Education Pathways – STEM Careers in Environmental Restoration Sciences” Eurasia Research (TERA 2021) Barcelona, Spain

Birney, L. (2021, May) “Billion Oyster Project Curriculum and Community Enterprise for Restoration Science (BOPCCERS) Phase II Career and Technical Education Pathways – STEM Careers in Environmental Restoration Sciences” Eurasia Research (TERA 2021) Singapore, Southeast Asia

Birney, L. (2020, December) “Billion Oyster Project Curriculum and Community Enterprise for Restoration Science (BOPCCERS) Phase II Career and Technical Education Pathways – STEM Careers in Environmental Restoration Sciences” International Symposium on Water, Ecology and Environment, (ISWEE 2020) Beijing, China

Birney, L. (2019, October) “Billion Oyster Project Curriculum and Community Enterprise for Restoration Science (BOP-CCERS) Proposal for Phase II Expansion; Career and Technical Education Pathways” WEI International Academic Conference on Education and Teaching (WEI- ET-Montreal 2019) Montreal, Canada

Birney, L. (2019, September) Billion Oyster Project Curriculum and Community Enterprise for Restoration Science (BOP-CCERS) Phase II Expansion; Career and Technical Education Pathways. Creating a Unified Foundation for the Sustainable Development: Research, Practice and Education. European Center of Sustainable Development; Rome, Italy

Birney, L. (2018, September) A Smarter Connected Community - Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools; “6th Annual Conference on Environmental Sustainability”, Rome, Italy

Birney, L. (2018, September) Keynote Address Evolving Education through Powerful Partnerships in the STEM Industry; Association for Development of Teaching, Education and Learning (ADTEL) Rome, Italy

Birney, L. (2018, April) Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools, 4th International Conference on Teaching, Education & Learning (ICTEL); London, England UK

Birney, L. (2018, March) Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools – A Partnership Model. The West East Institute International Academic Conference (WEI), Barcelona, Spain

Birney, L., & Diamantakos, G., (2017, October) Citizen Scientists - Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools, 25 International Conference on Teaching, Education, and Learning (ICTEL) Dubai, UAE

Birney, L., & Diamantakos, G., (2017, October) Researcher, PI and CEO - Managing a Large-Scale Environmental Restoration Project in New York City; Creating Expectations, Establishing Structure, Protocols and Realistic Outcomes; The 5 Asian Conference on Society Education and Technology; Kobe, Japan

Birney, L., & Diamantakos, G., (2017, October) Researcher, PI and CEO - Managing a Large-Scale Environmental Restoration Project in New York City; Creating Expectations, Establishing Structure, Protocols and Realistic Outcomes; The 5 Asian Conference on Society Education and Technology; Kobe, Japan

Birney, L., & Diamantakos, G., (2017, September) Curriculum and Community Enterprise for New York Harbor Restoration in New York City Public Schools” International Conference for Sustainable Development; Rome, Italy

Birney, L., & Diamantakos, G., (2017, September) Researcher, PI and CEO - Managing a Large-Scale Environmental Restoration Project in New York City; Creating Expectations, Establishing Structure, Protocols and Realistic Outcomes; International Academic Conference; Florence, Italy

Birney, L., & Diamantakos, G., (2017, June) Researcher, PI and CEO - Managing a Large-Scale

Environmental Restoration Project in New York City; Creating Expectations, Establishing Structure, Protocols and Realistic Outcomes; Higher Education Advances (HEAD 2017; Valencia, Spain

Birney, L., & Diamantakos, G., (2017, May) “Expanding Access and Deepening Engagement: Building an Open Source Digital Platform for Restoration-Based STEM Education in the Largest Public-School System in the United States” Technology, Knowledge and Society Research Network; Toronto, Canada

Birney, L. (2016, July) Citizen Scientists - Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools, Oxford Round Table – Environment, Climate Change and Sustainability; The Oxford University, Oxford, England UK (Accepted)

Birney, L. (2016, June) Millennium Technology Prize, Keynote Speaker – The STEM Collaboratory NYC™, Technology Academy of Finland; Helsinki, Finland

Birney, L. (2015, September) Keynote Speaker - Environmental Restoration and the Integration of Impactful Citizen Science; STEM Fest International Conference, Saskatoon, Canada

Birney, L. (2014, December) STEM Innovation Panel NEF – Science Based Restoration and Project- Based Learning. The Innovation Institute Symposia, London, England UK <http://innovationinstitute.org.uk/eventsarchive/2014>

Birney, L. (2014, October) Curriculum and Community Enterprise for New York Harbor Restoration in New York City Public Schools. Scientix Annual STEM Conference, Brussels, Belgium

Birney, L. & Hill, J. (2013, October) Developing STEM Curriculum for Middle School and Secondary School Students STEM-FEST, Borneo, Malaysia

Birney, L. (2013, September) Creating Partnerships with Multinationals in STEM Education STEM States WORLDSTEM Conference; Borneo, Malaysia

Birney, L. & Hill, J. (2013, September) Creating Partnerships with Multinationals in STEM Education Bangkok, Thailand

Birney, L. & Hill, J. (2012, October) Bridging the Gap between Higher Education and Secondary Education in New York City, New York; Istanbul, Turkey

B. National Presentations

Birney, L., (2024, September) Imagining Climate Resilient and Thriving Communities through Youth Education Programs; Georgia Tech University – Lead. Invited Presentation, The New York Climate Exchange – Climate Week New York City, Governor’s Island, New York City.

Birney, L. (2023, October) A Collaborative Citizen Science Project in New York City, PI Dr. Lauren B. Birney presented to The Qatari Group, Seidenberg School of Computer Science and Information Systems; Pace University, New York, NY.

Birney, L. (2023, August) The Billion Oyster Project with Curriculum and Community Enterprise for Restoration Science (BOP CCERS) Partnerships in STEM Education; The New York Climate Exchange, New York, NY

Birney, L. (2023, May) Curriculum and Community Enterprise for Restoration of a Keystone Species in New York Harbor, NSF Funded Grants and their Impact on New York City, PI Dr. Lauren Birney, School of Education; Pace University School of Education, New York, NY

Birney, L. (2019, September) STEM +C Principal Investigator and Evaluator Summit;

"Integrating Environmental Restoration Science with Computational Science in New York Harbor with New York City Public Schools" STEM +C BOP-CCERS Phase III, The National Science Foundation; DRL 1839056 Alexandria, VA

Birney, L. (2019, June) STELAR ITEST Principal Investigator and Evaluator Summit; "Billion Oyster Project Curriculum and Community Enterprise for Restoration Science (BOP-CCERS) Phase II Expansion; Career and Technical Education Pathways" Flash Talks, The National Science Foundation; DRL 1759006. Alexandria, VA

Birney, L., Kermish-Allen, R., Forsyth, S., & Stylinski, C. (2018, June). STELAR ITEST PI and Evaluator Summit STEALTHY STEM; Pecha Kucha Panel—Smart and Connected Communities Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools. The National Science Foundation DRL 1440869. Alexandria, VA

Birney, L., and McGee, S. (2018, June). STELAR ITEST PI and Evaluator Summit Smart and Connected Communities Expertise Exchange School Partnerships. Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools. The National Science Foundation DRL 1440869. Alexandria, VA

Birney, L. (2018, May). Presentation to the Pace University Board of Trustees. Managing Large Scale National Science Foundation Projects. DRL 1440869. New York, NY

Birney, L. (2018, March). The Biomimicry Institute Board Presentation. Leadership and Management of National Science Foundation Grant DRL 1440869. San Francisco, CA

Birney, L. (2018, January). Expanding Access and Deepening Engagement: Building An Open Source Digital Platform For Restoration Based Stem Education In The Largest Public School System In The United States, Hawaii International Conference on Education, Oahu, HI

Birney, L. (2017, September). Leading a Large-Scale NSF Project in STEM. Women in STEM Conference, San Francisco, CA

Birney, L. (2017, June) Citizen Scientists - Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools, The National Science Foundation Researcher's Summit; Austin, TX

Birney, L. (2017, June) STELAR ITEST PI and Evaluator Summit Smart and Connected Communities "Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools" The National Science Foundation DRL 1440869; Washington, DC

Birney, L. (2017, April) S-1010422-5459 Using (G) locally Relevant Authentic Inquiries to Engage Youth in Environmental Science Topics Out-of-School NARST GLOCALization and Sustainability of Science Education Research and Practice; The National Science Foundation, San Antonio, TX
http://stelar.edc.org/sites/stelar.edc.org/files/ITEST_NARST_2017.pdf

Birney, L. (2017, April) CIRCL "Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools" DRL 1440869 CIRCL Cyberlearning 2017; What's Next Making Connections to Shape the Future. The National Science Foundation; Washington, DC

Birney, L. & Hill, J. (2017, April) Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools, International Conference on Institutional Leadership, Learning and Teaching; University of Cambridge, Cambridge, England UK (New York, NY)

Birney, L. (2016, December) Curriculum and Community Enterprise – Research and Data; Presented to the Pace University Board of Trustees, New York, NY

Birney, L. & Kong, J., (2016, December) Probing into your Teaching Practice; Teacher Leadership Quality Partnership Network Day; White Plains, NY

Birney, L. & Hill, J. (2016, October) Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools, Center for Scholastic Research and Inquiry; Researching Professional Practices; Scottsdale, AZ

Birney, L. & Watson, E. (2016, July) Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools, STEM Forum; Denver, CO

Birney, L. (2016, June) Invited Panelist “Collective Impact: Cultivating Ideas and Solutions to Change the Future for First-Generation College Students” Global Minded Education Conference Denver, CO

Birney, L. & Haury, D. (2016, May) Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools – Information for New Principals Investigators, Invited Principal Investigator Presentation; Washington D.C.

Birney, L. & Janis, S. (2016, May) Research - Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools, Invited Principal Investigator Presentation; Washington D.C.

Birney, L. & Watson, E. & Molina, M. (2016, May) Qualitative Research for NSF DRL 1440869 Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools, Poster Session Science of Team Science; Phoenix, AZ

Birney, L. & Watson, E. & Molina, M. (2016, May) Quantitative Research for NSF DRL 1440869 Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools, Poster Session Science of Team Science; Phoenix, AZ

Birney, L. (2016, April) “Curriculum and Community Enterprise for the Restoration of New York Harbor with Title I Middle School in New York City Public Schools” NARST, Baltimore, MD

Birney, L. Revkin, A, & Cronin, J. (2016, February) Creating Communities Collaborations through Environmental Restoration; Teacher Leadership Quality Partnership Grant; Pleasantville, NY

Birney, L. & Hill, J. (2015, November) Impactful Teaching, Learning and Environmental Restoration through Citizen Science. Massachusetts STEM Summit 2015; Worcester, MA

Birney, L. (2015, November) Teaching and Learning in Schools with Smart and Connected Communities, NSF STEM Forum; Washington, DC

Birney, L. & Hill, J. (2015, February) Building the Ecosystem: A Case Study in Creating

Sustainable Recruitment, Retention, Research and Relationships for Student Engagement and Faculty Inclusion; Pace University Faculty Summit White Plains, NY

Birney, L., Janis, S., Revkin, A., & Kong, J., (2015, February) Restoration Based Learning and Inquiry- Making a Difference in the Community; Pace University White Plains, NY

Birney, L., & Janis, S. (2014, October) Curriculum and Community Enterprise for New York Harbor Restoration in New York City Public Schools; The STEM Network at PASE New York, NY

Birney, L. Kass, J., Kava, B., Kilbane, J. & Clayton, C., (2014, April) Tilting towards Inquiry: Implications for Teaching, Learning, and Professional Development” American Educational Research Association (AERA); Philadelphia, PA

Birney, L. & Hill, J. (2014, April) Establishing Partnerships with Multinationals in STEM Education, NSTA National Conference Boston, MA

Birney, L. & Horne, J. (2014, February) Assessing Inquiry Across the Curriculum”; Teacher Leadership Quality Partnership (TLQP) Network Day, White Plains, NY

Birney, L. (2014, January) Creating Partnerships with Multinationals in STEM Education; NSTA Regional Conference Oahu, HI
Birney, L. & Hill, J. (2014, December) Creating Partnerships with Multinationals in STEM Education; NSTA Regional Conference, Denver CO

Birney, L. & Hill, J. (2013, October) Creating Partnerships with Multinationals in STEM Education; NSTA Regional Conference, Portland, OR October 2013

Birney, L. (2013, September) Guidelines for Seeking Foundation Funding in STEM Education; STEM Education Triangle Coalition; Washington, DC

Birney, L. (2013, June) Developing Mobile App for Middle School and Secondary Students; Pace University School of Education and Seidenberg Computer Science and Information Systems STEM Summer Camp; New York, NY

Birney, L. & Hill, J. (2013, June) Establishing STEM Education Programs and Partnerships; Recruiting Scientists as Teachers; The Rockefeller University, New York, NY

Birney, L. & Hill, J. (2013, May) Creating Partnerships with Multinationals in STEM Education; St Louis, MO
Birney, L., Revkin, A & Horne, J. (2012, February) Creating and Implementing Scientific Inquiry in the Urban Classroom; Pace University, White Plains, NY

Birney, L. & Revkin, A. (2012, December) Creating and Implementing Scientific Inquiry in the Urban Classroom; Pace University, White Plains, NY

Birney, L. & Hill, J. (2012, July) STEM Education – Effective Networking, Creating Partnerships, Establishing Affiliates Leadership Program Impacts on Afterschool Education; Pace University/PASE Afterschool, New York, NY

Birney, L. (2012, July) Creating Meaningful Standards Based Science Curriculum using Teacher Research” Rockefeller University; New York, NY

Birney, L. & Hill, J. (2012, June) Stemming in Inquiry – Creating Innovative Digital Media Based Instruction; Pace University New York, NY

Birney, L. (2012, May) The DNA of Pace University; Innovation and Collaboration - Effective Partnerships; Pace University, White Plains, NY
Birney, L. (2012, May) Urban STEM Education National Science Teachers Association - First Annual STEM Forum and Expo; Atlantic City, NJ

Birney, L. & Goldberg, A. (2012, May) Bridging the Gap - Summer Planning and Professional Development, The Urban Assembly and Pace University; New York, NY

Birney, L. (2012, April) Oysters and Sustainability in the New York Harbor"; New York Harbor School and New York Academy of Sciences; New York, NY

Birney, L. (2012, March) New York City Urban School Life for Elementary Students; St Jeanne de Lestonnac Private Catholic School; Tustin CA

Birney, L. & Goldberg, A. (2012, March) Bridging the Gap – Determining the Demands of the College Classroom; The Urban Assembly at Pace University, New York, NY

Birney, L. & Hill, J. (2012, February) STEM Inquiry in the Urban Classroom; The Teacher Leadership Quality Partnership (TLQP) Symposium; White Plains, NY

Birney, L. (2012, February) Collaborative Inquiry for Teaching and Learning Network Day"; Facilitator, Teacher Leader Quality Partnership Grant; Pace University; White Plains, NY

Birney, L. (2011, November) STEM Education and Classroom Management in an Urban Environment; York College, New York, NY

Birney, L. (2011, November) Collaborative Inquiry for Teaching and Learning Network Day; Facilitator, Teacher Leader Quality Partnership Grant; Pace University; White Plains, NY

Birney, L. & Goldberg, A. (2011, November) Bridging the Gap Understanding and Planning for the Demands of the College Classroom; The Urban Assembly at Pace University; New York, NY

Birney, L. (2011, September) New Visions English Language Arts Professional Development – Academic Vocabulary and Common Core; New Visions/Penzell Network; Brooklyn/Staten Island, NY

Birney, L. (2011, September) New Visions English Language Arts Professional Development – Academic Vocabulary and Common Core; Youth and Community Development Network; Brooklyn, NY

Birney, L. (2011, July) Creating Science Curriculum using Teacher Research, The Rockefeller University; New York, NY
July 2011 **Birney, L.** (2011, June) Oracle Think Quest International Competition 2011, Judging Panel; Oracle Inc.; New York, NY

Birney, L. (2011, April) New Visions Math Professional Development – Academic Vocabulary, Common Core and Differentiated Planning Part II" and "ELA Planning and Concept Construxions" New Visions/Gambino Network; Bronx, NY

Birney, L. (2011, March) New Visions Math Professional Development – Academic Vocabulary, Common Core and Differentiated Planning Part I New Visions/Gambino Network; Bronx, NY

Birney, L. (2011, March) Teaching Tools and Experiences for Teachers, National Science Teachers' Association Conference; Exhibitor Educhange Inc./Teachers for Learners; San Francisco, CA

Birney, L. (2011, March) Academic Vocabulary, Common Core and Differentiated Planning for Science National Science Teachers' Association, Facilitator; San Francisco, CA

Birney, L. (2011, February) Collaborative Inquiry for Teaching and Learning Network Day; Facilitator, Teacher Leader Quality Partnership Grant; Pace University; White Plains, NY

Birney, L. (2010, December) Collaborative Inquiry for Teaching and Learning Network Day; Facilitator, Teacher Leader Quality Partnership Grant; Pace University; White Plains, NY

Birney, L. (2010, November) Differentiated Unit Planning and Project Design Election Day Professional Development; The Rockefeller University; New York, NY

Birney, L. (2010, June) Pedagogical Practices to Support Deeper Understanding Genetics and Evolution Institute NYCDOE The Rockefeller University; New York, NY

Birney, L. (2010, June) Visual Texts and 21st Century Skills in the Science Classroom NYCDOE The Rockefeller University; New York, NY

Birney, L. (2010, June) Academic Vocabulary Development and Differentiated Instruction Science Events; Chancellor's Day NYCDOE; The Andaz; New York, NY

Birney, L. (2010, February) Collaborative Inquiry for Teaching and Learning Network Day; Facilitator, Teacher Leader Quality Partnership Grant; Pace University; White Plains, NY

Birney, L. (2009, November) Collaborative Inquiry for Teaching and Learning Network Day; Facilitator, Teacher Leader Quality Partnership Grant; Pace University; White Plains, NY

VII. GRANTS, FELLOWSHIPS, AND INITIATIVES

Externally Funded Research and Development Projects

Total funding from The National Science Foundation (NSF) Grants = \$10.4 million

Funding for Additional STEM Education Projects = \$4 million

Total Funding for Grants = \$14.4 million as Principal Investigator

Research and funding focus based upon Experiential Learning for students in K-12 STEM Initiatives and Environmental Restoration Sciences; STEM Education

The Governor's Island Trust and New York Mayors Office; Design and Planning Committee in Education; The New York Climate Exchange; Role Planning Team, Pace University; (\$300 million) 2023 – 2043.

The National Science Foundation NSF DRL REU 2140046 – *"Integrating Environmental Restoration Science with Computational Science in New York Harbor with New York City Public Schools, REU"* September 2021; Role PI (\$92,000) Pace University; award from the National Science Foundation (NSF)

The National Science Foundation NSF DRL 1839656 – *"Integrating Environmental Restoration Science with Computational Science in New York Harbor with New York City Public Schools"* September 2018; Role PI (\$2,500,000) Pace University; award from the National Science Foundation (NSF)

The National Science Foundation NSF DRL1759006 – *"Curriculum and Community Enterprise for Restoration of a Keystone Species in New York Harbor"* March 2018;

Role PI (\$2,000,000) Pace University; award from the National Science Foundation (NSF)

The AT and T Foundation STEM Summer Camp July 2016 Role: Co-PI (\$10,000) Pace University; Promoting Under-represented in STEM Education (NSF)

The National Science Foundation NSF DRL 1643016 - Smart and Connected Communities “Expanding Access and Deepening Engagement: Building an Open Source Digital Platform for Restoration-Based STEM Education in the Largest Public-School System in the United States” February 2016 **Role: PI (\$330,000)** Pace University (NSF)

The National Science Foundation NSF DRL 156003 REU “Curriculum and Community Enterprise for New York Harbor Restoration in New York City Public Schools” June 2016 **Role: PI (\$80,000)** Pace University (NSF)

The AT and T Foundation STEM Summer Camp July 2015 **Role: Co-PI (\$10,000)** Pace University; Promoting Under-represented in STEM Education (AT and T)

The National Science Foundation NSF DRL 1440869 “Curriculum and Community Enterprise for New York Harbor Restoration in New York City Public Schools” October 2014 **Role: PI (\$5,000,000)** Pace University (NSF)

Time Warner Cable Foundation – STEAM Collaborative Project October 2014 **Role: PI (\$18,000)** Promoting Under-represented in STEM Education (Time Warner Cable)

The National Science Foundation NSF DUE 1246000 “Development of a Year-long, Research-based Laboratory Integrated within Core Genetics and Cellular & Molecular Biology Courses” Grant May 2012 **Role: COPI (\$181,000)** Pace University (NSF)

The AT and T Foundation STEM Summer Camp July 2014 Role; **Co-PI (\$10,000)** Pace University; Promoting Under-represented in STEM Education (AT and T)

The Time Warner Cable Foundation – STEAM Collaborative Project March 2013 **Role: PI (\$15,000)** Pace University (Time Warner Cable)

Teacher Leader Quality Partnership Grant; New York State Pace University August 2009 – 2017 **Role: Facilitator (\$600,000)** Pace University; PI Christine Clayton (New York State)

The Verizon Foundation – STEM Grant June 2012 **Role: PI (\$560,000)** Pace University; Promoting Under-represented in STEM Education (Verizon)

The San Diego Foundation, Blasker Grant September 2007 **Role: Lead Teacher Coordinator (\$72,870)** **San Diego State University**; Promoting Under-represented in STEM Education (Blasker Foundation)

The McCarthy Foundation Grant, 2005-2006 Role: **Lead Teacher Coordinator (\$20,000)** **City Heights Collaborative, San Diego State University, Hoover High School**; Promoting Under-represented in STEM Education (McCarthy Foundation)

The National Institute of Health NIH SEPA Phase II Grant Hoover High School/San Diego State University/Rees Stealy Research Foundation, 2002-2005, **Role: Senior Personnel**, STEM High School Educator **(\$200,000)**; Promoting Under-represented in STEM Education

Awards, Achievements and Recognitions

The Jefferson Service Award (Pace University 2019) Personal, sustained commitment to service, Exemplary model of spirit and service for the community based upon my research and commitment to New York Harbor.

Notable Women in Science 2019; The STEM Coalition 2019. Achievements in STEM Education <https://www.sciencecoalition.org/women-in-stem/>

Exemplary Grant Writing Award; First Honoree and Recipient from President Marvin Krislov and Provost Vanya Quinones Pace University New York, New York 2018 - 2019.

Provost Scholarly Research Award; Representing Faculty and serving as a Faculty Liaison to the National Science Foundation on behalf the Office of the Provost at Pace University, 2014-2020.

National Science Foundation Video Award Production; “Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools” DRL 1440869, October 2016 New York, NY

Pace Environmental Academy Faculty Scholar; Environmental Studies Pace University – “Bridging the Gap Program”; New York, New York 2012 – 2013 (\$4000)

Pace University Scholarly Research Committee Award; 2010-2013 Grant Development; New York, New York

Graduate Women in Science/American Women in Science – “Science Teacher of the Year” Southern California; San Diego, California 2003 (\$1000.00)

Digital Platforms, Websites, Social Media and B2B Marketing

[STEM CCERS Project 2014 – Present](#)

[The BOP CCERS Digital Platform – Research and Design for NSF Projects](#)

[CCERS Pace University Website](#)

[Billion Oyster Project STEM Education Website](#)

[Instagram Dr. Lauren Birney](#)

[Twitter Dr. Lauren Birney](#)

[BOP CCERS Remote Learning Resources](#)

Advisory Activities, Fellowships, and Professional Initiatives

Symposia Designed

The STEM Collaboratory NYC® CCERS – Curriculum and Community Enterprise for the Restoration of New York Harbor through New York City Public Schools Teaching Fellowship

STEM Forum; June 2023; Pace University New York NY (National Science Foundation Grant Sponsored DRL 1839656)

The STEM Collaboratory NYC® CCERS – Curriculum and Community Enterprise for the Restoration of New York Harbor through New York City Public Schools Teaching Fellowship STEM Forum; June 2022; Pace University New York NY (National Science Foundation Grant Sponsored DRL 1839656)

The STEM Collaboratory NYC® CCERS – Curriculum and Community Enterprise for the Restoration of New York Harbor through New York City Public Schools Teaching Fellowship STEM Forum; June 2021; Pace University New York NY (National Science Foundation Grant Sponsored DRL 1839656) (Virtual)

The STEM Collaboratory NYC® CCERS – Curriculum and Community Enterprise for the Restoration of New York Harbor through New York City Public Schools Teaching Fellowship STEM Forum; June 2020; Pace University New York NY (National Science Foundation Grant Sponsored DRL 1839656) (Virtual)

The STEM Collaboratory NYC® CCERS – Curriculum and Community Enterprise for the Restoration of New York Harbor through New York City Public Schools Teaching Fellowship STEM Forum; June 2019; Pace University New York NY (National Science Foundation Grant Sponsored DRL 1839656)

The STEM Collaboratory NYC® CCERS – Curriculum and Community Enterprise for the Restoration of New York Harbor through New York City Public Schools Teaching Fellowship STEM Forum; June 2018; Pace University New York NY (National Science Foundation Grant Sponsored DRL 1759006)

The School of Education Graduate Research Symposium at Pace University May 2019, New York, NY. The STEM Collaboratory NYC® CCERS – Curriculum and Community Enterprise for the Restoration of New York Harbor through New York City Public Schools Teaching Fellowship STEM Forum; June 2018; Pace University New York NY (National Science Foundation Grant Sponsored DRL 1440869)

The School of Education Graduate Research Symposium at Pace University May 2018, New York, NY. The STEM Collaboratory NYC® CCERS – Curriculum and Community Enterprise for the Restoration of New York Harbor through New York City Public Schools Teaching Fellowship STEM Forum; June 2017; Pace University New York NY (National Science Foundation Grant Sponsored DRL 1440869)

The School of Education Graduate Research Symposium at Pace University May 2017, New York, NY The STEM Collaboratory NYC™ CCERS – Curriculum and Community Enterprise for the Restoration of New York Harbor through New York City Public Schools Teaching Fellowship STEM Forum; June 2016; Pace University New York NY (National Science Foundation Grant Sponsored DRL 1440869)

The STEM Collaboratory NYC™ CCERS – Curriculum and Community Enterprise for the Restoration of New York Harbor through New York City Public Schools Teaching Fellowship STEM Forum; February 2016; Pace University New York NY (National Science Foundation Grant Sponsored DRL 1440869)

The STEM Collaboratory NYC™ at Pace University; Inspirations in STEM and Environmental Restoration December 2015; Pace University New York, NY (National Science Foundation Grant Sponsored DRL 1440869)

Pace University Wilson Center October 2015; True Partnerships – Curriculum and Community Enterprise for Environmental Restoration; Pace University New York, NY (The Wilson Center Sponsored)

Pace University STEM Symposia June 2015; Pace University New York, NY (National Science Foundation Grant Sponsored)

Pace University International Secondary STEM Student Symposia August, 2014; Pace University New York, NY (AT&T Foundation Sponsored)

Fall STEM Panel and Presentation; “Issues and Trends in STEM Education”; December, 2013 Pace University New York, NY (Verizon Foundation Sponsored)

Pace University International Secondary STEM Student Symposia August, 2013; Pace University New York, NY (Verizon Foundation Sponsored)

Pace University International STEM Consortium June, 2013; Pace University New York, NY (Verizon Foundation Sponsored)

Summer STEM Institutes, Consortia and Forum Designed

The National Science Foundation, The STEM Summer Institute for Middle and High School Students (2023, July) The STEM Collaboratory NYC® Pace University New York, NY

The National Science Foundation, The STEM Summer Institute for Middle and High School Students (2022, July) The STEM Collaboratory NYC® Pace University New York, NY

The National Science Foundation, The STEM Summer Institute for Middle and High School Students (2021, July) The STEM Collaboratory NYC® Pace University New York, NY (Virtual)

The National Science Foundation, The STEM Summer Institute for Middle and High School Students (2020, July) The STEM Collaboratory NYC® Pace University New York, NY (Virtual)

The National Science Foundation, The STEM Summer Institute for Middle and High School Students (2019, July) The STEM Collaboratory NYC® Pace University New York, NY

The National Science Foundation, The STEM Summer Institute for Middle and High School Students (2018, July) The STEM Collaboratory NYC® Pace University New York, NY

The National Science Foundation, The STEM Summer Institute for Middle and High School Students (2017, July) The STEM Collaboratory NYC® Pace University New York, NY

AT and T Mobility STEM Summer Camp for Middle and High School Students (2016, July) The STEM Collaboratory NYC® Pace University New York, NY

AT and T Mobility STEM Summer Camp for Middle and High School Students (2015, July) The STEM Collaboratory NYC™ Pace University New York, NY

Seidenberg Summer Scholars; *The Billion Oyster Project* (BOP CCERS) Summer Camp (2015, June) Pace University New York, NY AT and T Mobility STEM Summer Camp for Middle and High School Students (2014, July) The STEM Collaboratory NYC™ Pace University New York, NY

Verizon STEM Summer Camp for Middle and High School Students (2013, June) The STEM Collaboratory NYC™ Pace University New York, NY

Trademarks and Copyrights

The STEM Collaboratory NYC® 2016, Pace University New York City

Permanent STEM Exhibits Designed, Established and Created

The River Project 2018

The New York Aquarium 2021

Philanthropic and Fundraising Events

President/Provost Visitations; Tour of the Billion Oyster Project and Governor's Island, The New York Harbor School; June 2018

New York Aquarium Exhibit Unveiling Luncheon; Brooklyn, NY; September 2018

The New York Harbor School Luncheon; Celebrating 15 Years; The Lighthouse at Chelsea Piers; New York, NY; October 2018

The Biomimicry Institute, San Francisco, California
Private Residence Fundraiser, San Francisco, CA; May 2019 Private Residence Fundraiser, San Francisco, CA; June 2108

The Earth Island Institute Berkley, CA; October 2018 <http://www.earthisland.org/>

Professional Development, Consulting and STEM Coaching

The New York Climate Exchange Education, Workforce and Sustainability Committee (2023 – Current)

The New York Climate Exchange Climate Week Planning Committee (2023 – Current)

The New York Edge Advisory Council, Advisory Council Member; New York, NY (2019 – Current)

The Biomimicry Institute Advisory Board President Chair: San Francisco, CA 2017 – 2023

Pace University Seidenberg School of Computer Science and Information Systems Design Factory, Aalto University Finland Advisory Board: New York, NY 2014- 2016

Global STEM States Advisory Board: New York, NY 2014- 2016

Open Journal of Education; Reviewer; New York, NY; 2012 – 2014

Sage *Open*, Sage Publications; Reviewer and Editor; New York, NY 2010 – 2014

The Billion Oyster Project Advisory Board; New York, NY 2014 – 2017

Pace University New York Academic Advisory Board to the Provost, New York, NY; 2013-2016

Seidenberg Creative Labs Advisory Board, New York, NY; 2012 - 2015

SCIENCE HOUSE Foundation Advisory Consultant, New York, NY; 2012 - Current

New York STEM Network Advisory Committee Member, New York City, New York 2011 – Current

National Science Foundation Grant Panel Reviewer; Washington, D.C. 2009 –Current

Educhange Inc. Educational Consulting Firm; New York, New York, 2009 – 2016

STEM Consortium Director: Pace University; New York, NY. 2010 – 2012

Girl Scouts of America External Consultant; New York, New York 2012 – Current

New York Harbor Secondary School Consultant; New York, New York 2010 – 2016

Millennium High School Consultant; New York, New York 2008 – 2016

New York City Department of Education UDL STEM Project Consultant;
New York, New York 2012 – 2016

Questbridge STEM Elementary Charter School Consultant; New York, New York 2013- 2016

Millennium Brooklyn High School Educational Consultant; New York, New York 2011 – 2015

Brooklyn PREP High School Educational Consultant; New York, New York 2012 – 2014

CASTLE Middle School Educational Consultant; New York, New York 2009- 2011

Urban Assembly Schools; Bridging the Gap Program Coordinator; New York, NY 2010 - 2012

Science House Foundation Academic Liaison; New York, New York. 2008 - 2012

City Heights Educational Collaborative Founding Teacher; San Diego, California 1991 – 2007

VIII. TEACHING AND PROFESSIONAL EXPERIENCE/SERVICE

A. The STEM Collaboratory NYC® Director (2012 – Present) Service

Director; Creating and Establishing External Partnerships and Collaborations
 Director; Creating and Establishing Internal Partnerships and Collaborations
 Summer STEM Institutes for High School and Middle School Students
 Leading and Managing Interschool Grants with Dyson Colleges of Arts and Sciences,
 • Seidenberg School of Computer Science and Information Systems and
 Elizabeth Haub School of Law at Pace University
 Representation at the National Science Foundation; Liaison
 International and National Symposia at Pace University and Partners
 Establishing a Smart and Connected Community Consortium
 Mock Trial Hearings New York State Assembly Standing Committee on Environmental Conservation
 Creating Revenue lines for the School of Education through Funded Grants

B. Pace University New York Academic Identity Committee (Elected 2012 – 2016)

Review of University Academic Programs and Committees
Strategic Planning for Schools and Colleges University Wide
Production of University Summary Document
Town Hall Meetings for University Faculty and Staff
Quarterly Meetings and Planning Sessions
Certification and Credentialing Committee; Goal Five
Pace Bound Programs and Events Design

C. School of Education Childhood Committee (2010- Present)

STEM Curriculum Design Project
CAEP Course Design Project
EDTPA Re-Design Project
SPA Assessments and Reports Childhood Program
Clinical support and Resources
Course Templates and Syllabi for STEM Education
Search Committee for STEM Education 2011, 2012, 2014

D. School of Education Steering Committee (2011- 2013) (2019 Co-Chair – 2021)

Faculty Council Meeting Planning and Formats
Decision Making, Strategic Planning and Organizational Management Faculty Council
Advisory Committee for the School of Education

E. School of Education Faculty Affairs Committee (2009-2021)

Faculty Request and Evaluations
Faculty Handbook Design
Faculty Protocols and Procedures
Faculty Travel Policy
Faculty Strategic planning and Design

F. School of Education Student Affairs Committee (2007 – Present)

Providing support for students and student issues
Review of Student requests
Student Handbook

G. Faculty CAEP Committee – Programmatic Impact and Academic Planning

Participation Meetings and Program Design Discussion
Planning for CAEP Visitation
Review of Documentation for CAEP

H. University Leadership and Service

New York Climate Exchange Committee; Education, Workforce and Community Partnerships
Climate Week Planning (2023 – Current)

Strategic Corporate Partnership Committee (2020 – Current)

IX. Global SERVICE

Leadership

The New York Edge; Advisory Board Member, New York (2021 – Current)
The Advanced STEM in Cleantech Working Advisory Council, New York (2023 – Current)
Board Chair President; Board Member; The Biomimicry Institute, California (2017 – 2023)

Grant Reviewer

The National Science Foundation, Alexandria, VA (2010 - Current)

Manuscript Reviewer

Sage Open Publications
Journal of Curriculum and Teaching

National AND STATE SERVICE

Leadership

The National Science Foundation ITEST Principal Investigator Planning Committee 2021
NYCDOE Emerald Society (2018 – Current)
New York City STEM Education Network (2014 – Current)
STELAR Ecosystem and Network (2014 – Current)

Professional Development and Consulting (Open Source)

New York City Department of Education;
STEM Education, Environmental Restoration Science, Citizen Science

STEM Curriculum Design

“Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools – Environmental Studies for Middle Schools Students” Project CCERS- NSF EHR DRL 1839656 PI Lauren Birney; 2024, New York, New York *The CCERS Digital Platform*

“Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools – Environmental Studies for Middle Schools Students” Project CCERS- NSF EHR DRL 179006/PI Lauren Birney; 2023, New York, New York *The CCERS Digital Platform*

“Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools – Environmental Studies for Middle Schools Students” Project CCERS- NSF EHR DRL 1440869/PI Lauren Birney; 2018, New York, New York *The CCERS Digital Platform*

“Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools – Environmental Studies for Middle Schools Students – Field Guide and Protocol Manual” Project CCERS- NSF EHR DRL 1440869/PI Lauren Birney; 2018, New York, New York *The CCERS Digital Platform*

“Girl Scouts STEM Curriculum – Imagine your STEM Future”; Bozek, R. Birney, L.B., Berger, A., Lovell, E., Stoney, K. (2013) Girls Scouts of the USA; New York, NY

STEM Course Design

“CCERS Fellowship Billion Oyster Project”, The STEM Collaboratory NYC®, Columbia Lamont-Doherty Earth Observatory at Pace University School of Education 2016 Course, Project CCERS; 2016 New York, NY/PI Lauren Birney DRL 1440869

“Universal Design Learning STEM Modules”; (2016) Birney, L.B., Sackris, B., Hill, J., Kong, J., The STEM Collaboratory NYC® and New York City Department of Education, Special Education Department

STEM Professional Development

“Eco-STEM Tools for Digital Monitoring with New York City Public Schools”, Columbia- Lamont Doherty, and The STEM Collaboratory NYC® at Pace University, New York Harbor Foundation and Bio Base; Project CCERS DRL 1440869, 2016 New York, New York

National Science Foundation Notations

[Webinar on Smart and Connected Communities with NSF – Dr. Lauren Birney](#)

[Webinar on Citizen Scientists – Billion Oyster Project/CCERS – Dr. Lauren Birney](#)

[NSF Principal Investigator Summit 2018](#)

[NSF Principal Investigator Summit 2019](#)

[NSF STEM +C Principal Investigator Summit 2019](#)

[NSF STEM +C Panel Summary – Local Project Summary 2019](#)

[NSF Video from NSF Director Dr. Marrongelle 2019; Project Mention by Director](#)

[NSF CCERS – Video featured by NSF 2018 Science Nation](#)

[Notation by NSF and STELAR 2019 – Project Summary](#)

[CCERS Project Website 2019 – Summary Dr. Lauren Birney](#)

[New York Harbor – Resilience in the Face of Four Centuries 2019](#)

[Opening to STEM +C Principal Investigator Summary 2019](#)

[NSF STEM +C PI Summit – Dr. Lauren Birney Panels](#)

[NSF STEM +C PI Summit Summary 2019 Pi Lauren B. Birney](#)

X. PUBLIC INTEREST PUBLICATIONS, PODCASTS, WEBINARS, AND VIDEO PRODUCTIONS

Media and Community Public Relations Articles (Selected)

The New York Times (2015, October) A. Revkin

The Huffington Post (2015, October) J. Cronin

NBC Learn (2015, September) NBCUniversal

Hosted Webinars, Webcasts and Podcasts (Selected)

[Birney, L. and Midden, R., \(2018 April\) NSF WEBINAR "Students as Citizen Scientists: Participation in Real Science Research as a More Effective Way to Learn STEM" The National Science Foundation.](#)

[Birney, L. \(2016, January 21\). Smart and Connected Communities: An ITEST Perspective. Citizen Scientists - Curriculum and Community Enterprise for the Restoration of New York Harbor with New York City Public Schools \[Webinar\]. STEM Learning and Research Center \(STELAR\) @ Education Development Center.](#)

STELAR/National Science Foundation ITEST Principal Investigator Think Tank Webinar (2017); Boston, MA

National Science Foundation Webinar (2016) – [Smart and Connected Communities](#); Washington, DC

[Wilson Center at Pace University True Partnership Event \(2015\)](#)

Video Productions (Selected)

[STEM Video for all NSF \(2020\)](#)

[NSF VIZZIES Award Finalist \(2018\):](#)

[STEM Video for all NSF \(2018\)](#)

[The National Science Foundation and Science Nation Video "Hands-on learning research that benefits the economy, environment." \(2017\) Birney, L and CCERS Team](#)

["NSF Video Showcase; Advancing STEM for All" Birney, L. and CCERS Team Science Nation; The National Science Foundation STEM \(2017\)](#)

[CCERS Teaching Video "Connecting our Community – New York City Harbor", Lahana, L. and Birney, L. \(2016\)](#)

[NSF True Partnership Video "Celebrating Connections and Collaborations", Birney, L., Dohlin, J. and Jost, N. \(2016\)](#)

NSF CCERS Teaching Fellow Orientation "Vertical Planning Pods for Restoration Science" Video Birney, L. Hill, J. and Jost N. (2016)

"NSF Video Showcase; Advancing STEM for All" Birney, L. and Jost, N. NSF 2016 STEM (2016)

["STEM Summer Scholars – The STEM Collaboratory NYC® Summer 2016"](#)

Interviews and Perspectives

1. [The Center for Innovative Research in Cyberlearning, Publication, July 2016](#)
2. The Center for Innovative Research in Cyberlearning, Perspective, June 2016

Selected Advocacy Publications

[The Pleasantville Daily Voice; September 2014](#)

[The Campus Technology Magazine; August 2014](#)

[NBC TV; August 2014](#)

[DNA Info; August 2014](#)

[UMB Future Cities; August 2014](#)

[UMCES Newsletter; August 2014](#)

[Billion Oyster Project; July 2014](#)

[Downtown Alliance; July 2014](#)

[WordPress; November 2014](#)

[Downtown Post; October 2014](#)

[STEM Connector; August 2014](#)

[Instagram Billion Oysters; September 2014](#)

[STEM Daily; October 2014](#)

[Pleasantville Daily Voice; September 2014](#)

[Veeoz; August 2014](#)

[Scientix; August 2014](#)

[Maritime Wordpress; August 2015](#)

[National Science Foundation; June 2014](#)

[The Democratic Whip; March 2013](#)

[The American Association of Colleges for Teacher Education; February 2013](#)

[Change the Equation; January 2013](#)

[The National Journal; January 2013](#)

[Westfair Communications; January 2013](#)

[The Hill; December 2012](#)

[STELAR 2016](#)

[The National Science Foundation - Science Nation](#)

[PR WEB 2016](#)

[The Smithsonian Magazine 2016](#)

[Bill Clinton 2016](#)

[CIRCL Magazine Profile Lauren Birney](#)

[Downtown Express 2016 The STEM Collaboratory NYC®](#)

[NBC Learn – Lauren Birney and Billion Oyster Project](#)

[Wall Street Journal – Billion Oyster Project 2018](#)

[Dot Earth New York Times – Andrew Revkin – Lauren Birney](#)

[Epicure and Culture 2018](#)

[Green Point News – Help Restore New York Harbor](#)

[Vertical Response 2019](#)

[Restore New York Harbor by 2030](#)

[CBS Local Rockaway Point](#)

[Waterfront Alliance 2020](#)

[Waterfront Alliance 2015 – New York Harbor](#)

[Billion Oyster Project – Volunteer Day Spotlight](#)

[Vimeo 2020 – Lauren Birney Billion Oyster Project](#)

[Living Breakwaters – Brian Lehrer Show](#)

[South Shore – Staten Island New York BOP](#)

[Heroes of the Harbor 2016](#)

[Old Salt Blog – BOP and Chesapeake Bay Oysters](#)

[Sustainability – Oysters on the Half Shell](#)

[Ecosystems – Food Republic](#)

[Billion Oyster Project – You Tube 2020](#)

[Billion Oyster Project – You Tube 2019](#)

[Prince William Visits the Billion Oyster Project New York Times](#)

[Prince William Visit the New York Harbor Oyster Program – New York, AP](#)

[Prince William attend Climate Week and the Billion Oyster Project Vanity Fair](#)

[Prince William Visit the Billion Oyster Project; Vanity Fair](#)

Summary of Notable Accomplishment and Achievements

Academic Accomplishments:

1. Creation of Unique ***Educational Learning Model*** – Curriculum and Community Enterprise for Environmental Restoration Sciences (CCERS) with the Billion Oyster Project (BOP) ***The BOP-CCERS Model***
2. Substantiated as a ***Replicable National and Global Educational Model*** supported through the NSF
3. ***Notable Achievements and Accomplishments of Distinction in STEM Education***; Local and National
4. ***Distinguished in the Field of STEM Education; Research, Teaching and Service*** (4.6 average on cumulative teaching courses over the last six years; 2018 – 2023) Pace University New York City.

Exemplary Partnerships while Creating and Establishing an Environmental Restoration Learning Model New York City:

1. **Engaging a community on a unifying Community-Based Initiative** – Providing Clean Water in New York Harbor through a local public service Initiative. (New York City Department of Education, NYCDOE)
2. **Creating opportunities for underrepresented and marginalized youth and partnerships** with the largest school district, NYCDOE, in the United States, 1.2 million students, 80,000 teachers, 1868 school sites.
3. Establishing an **Educational Community Based Partnership Model** that leverages the non-profit organization, Community Based Organizations, University Partners and the public-school partners and STEM Industry professionals working in unison one initiative.

Distinguished Professor Notable Highlights and Achievements include:

1. **\$10.4 million in funding from the National Science Foundation (NSF)**; BOP-CCERS Project Phase I, II and III
2. **\$4.0 million in Research Funding from Foundations and Private Funders** (\$14.4 total)
3. **Women in STEM Initiative by the National Science Foundation (NSF)**, Notable Grants in STEM, Key-Note Speaker and National Panelist at the National Science Foundation (NSF) (2014 – 2024); Numerous Videos Produced about the BOP-CCERS Project, [Hands on Learning – The National Science Foundation](#)
4. **NSF BOP-CCERS Recognized by the EHR Directorate of NSF**; STEM+C Singular Project Distinction (2018)
5. **The Jefferson Award for Community and Public Service Award**, Pace University (2019)

Scholarship and Funded Research

1. Scholarly Publications and Articles (84), Global Scholarly Presentations (124)
2. National Science Foundation Grants (\$10.4 Million, 7 grants)
(\$3 million AISLE, \$4 million Smart and Connected Communities, \$3 million /TEST; \$30 million STEM Community Learning Center, Total Pending NSF Submission \$40 million 2024 – 2026)
3. NSF White Papers on CCERS Educational Learning Model (4)
4. NSF Projects; Visiting Scholar NSF Program Officer Dr. Arlene de Strulle (Fall 2019 - Spring 2020)
5. [BOP CCERS Digital Platform](#); Research Data Platform 2.0 with Morgan Stanley (2023)
6. International and National Invited Research Keynote Presentations (24)
7. [Implementing the Sustainable Development Goals; Strategies for a Livable World](#); Book Chapter (Nicholas Robinson Haub School of Law, Lauren Birney)
8. New York Climate Exchange; Grant Writing and Planning Committee; Pace University \$150 million
9. Professor, Scientists Collaborations for Research, Presentations, Publications and Events (2014-2024)
10. Director of the STEM Collaboratory NYC®, Funding for STEM Projects in NYC (2012 - Current)

Academic Teaching and Learning

1. Created BOP CCERS Course; Environmental Restoration Science for Teachers (Pace University, Billion Oyster Project and the NYCDOE) (2014- 2024); Secondary Schools
2. Student Research Symposium at Billion Oyster Project on Governor's Island (2014- 2024)
3. Near Peer Mentoring Program for Middle and High School Students (NSF DRL 1759006)
4. Elementary Teaching Program in Environmental Sciences at Pace (2018 - 2024)
5. Partnership with STEM Scientific Community "NYC Scientists Consortium"; Member
6. ED 690 Teacher as Researcher Forum at Pace University, 2012 – 2024
7. New York City Community Collaborations, Partnerships and Affiliations Teaching and Learning
8. Notable Teaching Evaluation Scores, Student Participation in Research, Writing and Presentations
9. Award; Largest Teaching and Learning Grant in Pace University History; \$5.4 million, NSF (2014)
10. New York Climate Exchange Collaborations; Governor's Island Collaborative Course and Research (*NOAA Grant for \$10 million for Teaching and Learning - Climate Ready*)

University Service - External Service and Internal Service

1. Jefferson Service Award for Community and Public Service; Pace University
2. The Biomimicry Institute; San Francisco, CA. Board Chair and President, Board Member
3. Director of the STEM Collaboratory NYC® at Pace University 20-14 - Present
4. The New York Aquarium BOP CCERS Exhibit Unveiling; Brooklyn, New York (Spring 2024)
5. STEM Community Environmental Restoration Hubs; New York Harbor, New York Liaison
6. STEM Summer Institute Coding; STEM Collaboratory NYC Pace University (2012-2024)
7. Established CTLE Credit for Teaching Professional Learning (Pace/BOP/NYCDOE Courses)
8. Indirect Cost support for SOE Faculty to Conduct Research resulting from NSF Grants
9. Member University Management Council Pace University; SOE Faculty Liaison
10. School of Education STEM Advisory Committee, New York Edge Advisory Committee

Dr. Lauren Birney; Federal Grants; 2023- 2024

Grants	Role	Partners	Amount	Status
1. OASAS-Pace University Government-Academic Research and Evaluation; PI Rebecca Tekula (Pace Dyson)	CO PI	Pace, SOE, CHP, Lubin, Dyson, Haub School of Law, The Wilson Center	\$1 million	Funding Temporarily Suspended
2. NSF CIVIC PG TRACK B Mount Vernon Pace Community Environmental Health Improvement Plan (CEHIP), PI Craig Hart (Haub Law)	CO PI	Haub School of Law, Pace SOE, Pace CHP, Pace Dyson, Mt Vernon	\$74K	Pending
3. Con Edison, PI Craig Hart (Haub Law)	CO PI	Haub School of Law, Pace SOE, CHP, Dyson	\$350K	Pending
4. NIH SEPA, PI Craig Hart (Haub Law)	CO PI	Haub School of Law, Pace SOE, CHP, Dyson	\$1.4 million	Pending
5. Mosaic IP, Education Research and Development Center, PI Nicole Galante (Mosaic)	CO PI	Pace SOE, Seidenberg and Mosaic	\$10 million	Returned, Technical
6. NOAA, NIH, PI Lauren Birney (Pace SOE)	Principal Investigator	Pace, Stony Brook, Waterfront Alliance, NYAS and 24 Partners	\$10 million	Pending
7. ARCHIELAGIC RESILIENCE: Using the Performance of Today's Policies to Inform Tomorrow's Actions. (NOAA), PI David Erdman (Pratt)	CO PI	Pratt, Pace SOE, Pace Seidenberg, Blue Collab	\$74K	Pending
8. NSF Teaching Corp, PI Lauren Birney (Pace SOE)	Principal Investigator	Pace School of Education	\$10 million	In Progress, Submit in October 2024
9. Mosaic Teaching; Transformative Research in the Education Sciences, PI Dean Channing Ford (Jackson State University)	CO PI	Jackson State, Pace SOE, and MOSAIC	\$3.74 million	In Progress, Submit in September 2024

Current Total Funding Pending - \$36,335,000 million