



Short communication

Pouring rights contracts between universities and beverage companies: Provisions related to scientific research

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ABSTRACT

Pouring rights contracts between universities and beverage companies are common and grant companies the exclusive right to serve, sell, and market specific beverages on campuses. In exchange, universities receive financial payments and other incentives. At the same time, beverage industry-sponsored research at universities has increased. Pouring rights contracts may include provisions that allocate funds for or place limitations on scientific research. In this cross-sectional study, we assessed whether pouring rights contracts contained provisions that allocated funds for or placed limitations on scientific research. From 2019 to 2020, we obtained contracts through requests under public records laws from US universities (public, 4-year, $\geq 20,000$ students) with contracts active 2018–2019. Of the 143 requests, 6 did not have contracts and 9 declined to provide contracts. Our final sample included 131 contracts from 124 universities in 38 states. Thirty contracts (22.9%) referenced research (18 Coke; 12 Pepsi). Three contracts (2.3%) included provisions that made direct grants or gifts of research funding, 3 (2.3%) permitted the university to acknowledge funding from competitors, and 26 (19.8%) allowed for research using beverages from competing companies. Given increases in industry-sponsored research, the absence of provisions that made direct grants or gifts of research funding suggests that sponsorship of research is occurring through other mechanisms. Additionally, universities must be able to acknowledge funding and conduct research on any beverage and should not need permission via contract provisions to do so. Future studies should consider practical implications of these provisions in pouring rights contracts and assess whether they facilitate or hinder research.

1. Introduction

The billion dollar global beverage industry (not including dairy) produces sugar-sweetened beverages, like soft drinks, sports drinks, and juice drinks. The two most prominent multinational corporations – Coca-Cola Company (hereafter “Coke”) and Pepsi – dominate the global soft drink industry. (Euromonitor International, 2016) Sugar-sweetened beverages, like the ones produced by these companies, contribute substantially to the development of non-communicable diseases. (Malik and Hu, 2022) These beverages are typically offered to students, faculty, and staff on university campuses through contractual agreement via pouring rights contracts, which are common in the US (Komatsoulis, 2018). These contracts grant beverage companies the exclusive right to serve,

sell, and market specific beverages on university campuses. In exchange, universities receive financial payments and other incentives, which can be worth hundreds of thousands and sometimes millions of dollars per year (Komatsoulis, 2018; Greenthal et al., 2022).

At the same time, industry-sponsored research, including scientific research conducted at universities but supported by food and beverage companies like Coke and Pepsi, has gained momentum (Bragg et al., 2020). Many within and outside of academia have expressed concern about conflicts of interest in nutrition research supported by food and beverage companies (Nestle, 2001; Margetts and Arab, 2001; Vorster, 2001; Katan, 2007; Mozaffarian, 2017). There are, however, challenges associated with tracking and quantifying industry-sponsored research (Margetts and Arab, 2001; Serôdio et al., 2018; Steele et al., 2019).

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Bragg et al. reviewed publicly available documents (e.g., press releases, news articles, tax documents) and found that academic research sponsored by the food industry had increased substantially in the US – from \$3 million in 2000 to \$24 million in 2016. (Bragg et al., 2020) They also found that food and beverage companies provided millions of dollars to universities but disclosed few additional details. (Bragg et al., 2020) Although the authors used publicly available data, they did not review actual contracts.

Steele et al. (2019) on the other hand, reviewed 87,013 pages of documents, including 5 contracts, between Coke and public institutions in the US and Canada. They found that contracts contained provisions that gave Coke the ability to influence study findings (e.g., whether to publish) (Steele et al., 2019). However, they also found evidence through email exchanges that researchers could often negotiate to remove some of these provisions from the contracts prior to execution. Finally, Serodio et al. (2020) documented the extent to which Coke attempted to influence research in the Global Energy Balance Network – formerly a US-based group of researchers focused on obesity prevention. (O'Connor, 2015) The authors reviewed emails obtained through Freedom of Information Act (FOIA) (Freedom, 1967) requests and concluded that Coke tried to obfuscate its role in research and encouraged the researchers to promote industry-friendly messages. (Serodio et al., 2020).

In general, there is limited information about who receives food and beverage industry funding for scientific research, how much, under what conditions, and for what purpose. Pouring rights contracts may include provisions that allocate funds for research. These allocations would be above and beyond other provisions related to marketing, rebates, and volume-based incentives, which are present in nearly all contracts between universities and beverage companies (Greenthal et al., 2022). However, few are privy to their content outside of the contracting parties and many within the university community may not even know they exist. (Thompson et al., 2021) Despite this, public universities in most states are subject to state public records laws requiring the release of requested documents (although specific documents may be exempt). (Horsley and Sun, 2012) We therefore sought to determine whether pouring rights contracts contained provisions related to scientific research in terms of funding for specific departments, centers, or individuals and any restrictions placed on research related to beverages conducted at the university. We considered this exploratory research to be hypothesis-generating, based on the lack of prior literature in this area.

2. Methods

We conducted this cross-sectional study from summer 2019 to fall 2020. Additional details about our study are reported elsewhere. (Nestle, 2001; Marx et al., 2021; Zaltz et al., 2022) Briefly, we limited our sample to 4-year degree granting public universities, as determined by the National Center for Education Statistics' Integrated Post-secondary Education Data System. To be included, universities had to be based in the US, have $\geq 20,000$ students enrolled, and have contracts that were active at any point from 2018 to 2019. In summer 2019, we submitted requests under state FOIA laws to 143 universities in 40 states for contracts "offering rights to sell, market, promote, and/or advertise beverages" on campuses. We followed-up with non-responding universities through summer 2020. Two independent reviewers coded contracts in their entirety in fall 2020 and documented provisions related to research. All authors reconciled differences through a collective discussion until we reached consensus. The Johns Hopkins Bloomberg School of Public Health Institutional Review Board considered this research exempt.

3. Results

Of the 143 requests, 6 universities did not have contracts and 9

declined to provide contracts for a variety of reasons. Our final sample included 131 contracts from 124 universities in 38 states with active contracts between January 1, 2018 and December 31, 2019. Of these, 64 were with Coke and 67 were with Pepsi. Thirteen contracts had text redacted. Of the 131 contracts included in this analysis, 30 (22.9%) referred to scientific research in some capacity (Table – individual names redacted to protect confidentiality). Eighteen of the 30 contracts (60.0%) were with Coke and 12 (40.0%) were with Pepsi.

3.1. Direct grant or gift of research funding

Three of the 131 contracts (2.3%) included provisions that made direct grants or gifts of research funding (Table 1). Georgia Southern University's contract with Coke provided \$25,000 for "Sustainability and Research Support" without providing additional details. Similarly, the University of Florida's contract with Pepsi provided \$32,000 for a low-carbon organic fertilizer trial in collaboration with the University of Florida Institute of Food and Agricultural Sciences Extension and \$1,500,000 from Pepsi's Tropicana to University of Florida Foundation to work on sustainable citrus production systems (via separate agreement but referenced in contract). Finally, the contract between the University of Nebraska – Lincoln and Pepsi referenced support for the "UNL Student Life Programs Including: Undergraduates in Creative Activities & Research Experience Program (UCARE) Supporting undergraduate research ..." (amount not specified).

Two additional contracts referenced but did not explicitly allocate research funding. The contract between the University of Georgia and Coke referenced support for a faculty member's research, a Dean's project, and "various technical grants." This contract also referenced funding awards to the Center for Marketing Studies, the Food Science Department, and the Department of History, among others. The contract with the University of North Carolina – Chapel Hill noted that Pepsi had "...research projects with leading universities and other institutions around the world."

3.2. Naming competitor to acknowledge grant or gift allowed

Three contracts (2.3%) allowed the university to publicly name a competitor in order to acknowledge a grant or gift that may or may not have been for research purposes (Table). The Arizona State University contract with Coke permitted the naming of the specific company and publication of the company logo in the acknowledgement, but not product logos. The Ohio State University contract with Coke permitted an acknowledgement but did not allow the university to grant naming rights to facilities or buildings without permission. The contract between the University of Arkansas and Pepsi allowed for acknowledgement but imposed further restrictions in that "... sponsorship of the foregoing activities by a Competitor shall not be the subject of a press release, social media, digital media or similar communication efforts to the extent such activities may confuse the public into believing that a Competitor is a Beverage sponsor of the University."

3.3. Researching competitor's beverage allowed

The most common provision (26 contracts; 19.8%) allowed for the conduct of research using beverages from competing companies (Table). For example, the University of Oklahoma – Norman Campus contract stated that faculty were allowed to engage in academic research involving a competitor's beverage but included restrictions. Similarly, the contract with the University of Kansas provided that, "Notwithstanding any provision of this Agreement to the contrary, it shall not be a violation of this Agreement for KSU ... to engage in academic research involving a Competitive Product." Notably, the University of Houston contract referenced water as the only allowable beverage from competitors that may be used in research.

Table 1Pouring rights contracts between universities and beverage companies with provisions related to research,^a 2018–2019.

University	Beverage company	Year(s)	Has Direct Grant / Gift of Research Funding	Allows Naming Competitor to Acknowledge Grant or Gift	Allows Researching Competitor's Beverage
Arizona State University	Coca-Cola Company	07/01/15 – 06/30/25	–	X	–
It is not a violation of this Agreement for University to list the names and Company logos (but not product logos) of Competitive Products in its standard lists of donors or academic or research partners if a donation or academic or research partnership is made by a corporate entity whose name is also that of a Competitive Product (i.e. PepsiCo, Pepsi Bottling Company, etc.). Vending Agreement: "University Marks" means those Marks owned, licensed, or otherwise controlled by ASU (excluding Marks reserved for specific University departments or research projects, unless otherwise mutually agreed upon by the parties)					
Ball State University	PepsiCo, Inc	08/05/10 – 08/04/20	–	–	X
Notwithstanding anything to the contrary herein, it shall not be considered a violation of this Agreement for any or all of the following to occur: (iii) The University or its employees to engage in academic research involving a Competitive Beverage so long as the research does not involve the sale or distribution of a Competitive Beverage on the Campus.					
Boise State University	Coca-Cola Company	07/01/13 – 06/30/18	–	–	X
Company Beverages will be the only Beverages sold, served, distributed, sampled, or otherwise made available on Campus, provided however University may, on a non-exclusive basis, serve, sell, dispense and/or, except as provided below advertise the following Competitive Products ("Permitted Exceptions") on Campus: the use of any Beverages for academic research purposes, or other educational purposes. No advertising on Campus of such Beverages is permitted.					
California Polytechnic State University – San Luis Obispo	Coca-Cola Company	08/01/09 – 07/30/19	–	–	X
Beverage Products will be the only Beverages sold, served, distributed, sampled, or otherwise made available on Campus, provided however that CPC may, on a non-exclusive basis, serve, sell or dispense the following Competitive Products ("Permitted Exceptions") on Campus. c) Academic use. Competitive products used for academic research or medically related patient care would be permitted as an exception.					
California State University – Long Beach	Coca-Cola Company	09/01/15 – 08/31/21	–	–	X
Competitive Products are allowed to be used solely for academic research purposes or medically related patient care.					
East Carolina University	Coca-Cola Company	01/01/11 – 12/31/21	–	–	X
Any products used for academic research or medically related patient care are expressly excluded as well, and is not covered in this RFP.					
Georgia Southern University	Coca-Cola Company	09/01/14 – 08/31/24	X	–	–
Coca-Cola has outlined the following recommendation of this disbursement of the \$500,000 annual sponsorship funding based on the order of importance of specific priorities per our ongoing discussions with GSU: Sustainability and Research Support = \$25,000.					
Georgia State University	Coca-Cola Company	07/01/16 – 06/30/26	–	–	X
Company Beverages will be the only Beverages sold, served, distributed, sampled, or otherwise made available on Campus, provided however University may, on a non-exclusive basis, serve, sell or dispense the following Competitive Products ("Permitted Exceptions") on Campus, provided that no Competitive Products are sold, vended, distributed, dispensed or otherwise served from Sponsor's Equipment: Use of any beverages for academic research purposes.					
Kansas State University	PepsiCo, Inc	07/01/15 – 06/30/22	–	–	X
Notwithstanding any provision of this Agreement to the contrary, it shall not be a violation of this Agreement for KSU or its employees to engage in academic research involving a Competitive Product. If such research involves sales of Competitive Products at KSU, KSU will notify Pepsi of the sales as soon as KSU becomes aware of such sales, provided that, in the judgment of KSU, said notification can be made without compromising or having a negative effect on such research.					
Louisiana State University and Agricultural & Mechanical College	Coca-Cola Company	04/01/11 – 06/30/21	–	–	X
Notwithstanding anything to the contrary contained in this Agreement, and in addition to all rights reserved by LSU, the following activities are specifically permitted and are not prohibited by this Agreement, and their occurrence shall not constitute a breach of this Agreement: (a) Activities conducted by LSU pursuant to the performance of research grants and contracts or in the conduct of its instructional programs, provided that in connection with such activities no Person shall (1) be designated by LSU in writing as a commercial or promotional "sponsor" of any LSU activity related to the sale of a Product or be granted the right by LSU in writing to so claim in any advertising or promotion of its Products; or (2) be granted any rights related to a Product beyond those necessary for the performance of research grants and contracts or in the conduct of LSU's instructional programs.					
Ohio State University – Main Campus	Coca-Cola Company	07/01/18 – 06/30/33	–	X	X
During the Term, sponsors, sellers, manufacturers, distributors, and/or marketers of Competitive Products may sponsor bona fide research projects or acquire services from a University department or unit (e.g. testing services and Fisher College of Business conducting survey) conducted by University's faculty, students and/or staff on the Campus. Further, University may accept charitable gifts or grants from manufacturers, distributors and/or marketers of Competitive Products and may recognize such donors or grantors pursuant to standard University policy and typical University practices, including, without limitation, through appropriate donor recognition societies and publications and fund or academic program namings, provided, however, that no Competitive Product brand names shall be granted naming rights to any external physical facilities or buildings on Campus during the Term of this Agreement, without prior consultation with Sponsor. If University decides to move forward with competitor, Sponsor and University will meet to determine a mutually agreed upon remedy, if any. For the avoidance of doubt, University is permitted to grant naming rights to Competitive Product brand names through physical space namings of areas located inside physical facilities or buildings (e.g., classrooms, wings of buildings, labs, etc.). For contributions from Competitive Products for which a standard recognition would result in high public visibility (not including standard donor listings), University shall provide Sponsor with an advance courtesy notice of any such recognition.					
Purdue University – Main Campus	Coca-Cola Company	07/01/13 – 06/30/20	–	–	X
During the Term, University's faculty and/or students on the West Lafayette Campus may use Competitive Products in bona fide academic research projects.					
University of Akron – Main Campus	Coca-Cola Company	07/01/12 – 06/30/22	–	–	X
During the Term, manufacturers, distributors, and/or marketers of Competitive Products may sponsor bona fide academic research projects conducted by University's faculty and/or students on Campus.					
University of Arkansas	PepsiCo, Inc	07/01/12 – 06/30/22	–	X	X
Additionally, nothing contained in this Agreement shall preclude the University from hosting academic presentations, sponsored research, conferences or conducting other academic or scientific inquiries that may arise during the life of this Agreement, including, if appropriate, providing a sponsorship or gift acknowledgment for any individual or entity sponsoring					

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Table 1 (continued)

University	Beverage company	Year(s)	Has Direct Grant / Gift of Research Funding	Allows Naming Competitor to Acknowledge Grant or Gift	Allows Researching Competitor's Beverage
such activities; provided, however, any such sponsorship or gift acknowledgment shall be limited, general and factual in nature and shall not have the purpose or effect of undermining the associational rights granted by the University in this Agreement. UAF agrees that sponsorship of the foregoing activities by a Competitor shall not be the subject of a press release, social media, digital media or similar communication efforts to the extent such activities may confuse the public into believing that a Competitor is a Beverage sponsor of the University.					
University of California –Berkeley	PepsiCo, Inc	08/04/11 – 07/31/21	–	X	
“Non-Competitive Beverages” shall mean ... any products used for academic research.					
University of California – Davis	PepsiCo, Inc	09/01/14 – 08/31/24	–	–	X
“Non-Competitive Beverages” shall mean ... any products used for academic research.					
University of California – Irvine	PepsiCo, Inc	07/01/17 – 06/30/27	–	–	X
Pepsi acknowledges and agrees that “Beverages” do not include ... any beverages used for academic research.					
University of California – Santa Barbara	PepsiCo, Inc	07/01/14 – 06/30/24	–	–	X
[A]ny products used for academic research are expressly excluded from this RFP and not subject to “limited exclusivity”.					
University of Connecticut	Coca-Cola Company	07/01/12 – 06/30/21	–	–	X
Sponsor Beverages will be the only Beverages sold, served, distributed, sampled (i.e., distributed at no cost), or otherwise made available on Campus, provided, however, that University may on a non-exclusive basis serve, sell or dispense the following Competitive Products (“Permitted Exceptions”) on Campus: Beverages used for bona fide academic research.					
University of Florida	PepsiCo, Inc	08/16/15 – 08/15/25	X	–	X
During the Term, University/Hospital Parties, the coaches and staff (i) shall not themselves nor shall they permit a third party to sell, serve, sample, promote, market, advertise, sponsor or endorse Competitive Products at the Facilities or in connection with the University/Hospital Parties, the Team Marks or any of its coaches and staff and (ii) shall ensure that the Products are the only Beverages sold, served, sampled, promoted, marketed, advertised, merchandised, sponsored or endorsed at the Facilities or in connection with the University/Hospital Parties, the Team marks or any of its coaches and staff. This provision does not apply to ... Competitive Products purchased and used for UF research projects. Pepsi agrees to provide additional support to UF on mutually agreeable programs and initiatives in support of a joint vision to integrate the goals of recycling, ecological restoration, economic development, and social equity. Such initiatives may include, for illustrative purposes only, financial and professional support (up to \$5,000 annually) on those programs as illustrated and listed below: ... G. Recycling or other Research: Pepsi could fund small individual research projects where there is joint interest to improve sustainability performance of Pepsi. Research could be in Marketing, Communications, Sustainability, or other areas designed to improve campus bottle and can recycling rates which could be deployed at other locations; or for leading edge technologies that Pepsi uses in manufacturing/distribution such as orange peel thermal processing, transportation systems, shrink tunnel, and cooling tables; and H. Carbon Offsets: Pepsi could support UF’s goal of offsetting its carbon footprint through carbon reductions in Pepsi’s supply chain that would be identified and implemented through joint collaboration and research. The University/Hospital Parties acknowledge Pepsi as a strategic partner in sustainability initiatives. Under separate agreement, Pepsi’s Tropicana division agreed to provide the University of Florida Foundation with a donation of \$1,500,000 (paid over a 5-year period from 2012 to 2017) to work on sustainable citrus production systems. Also, Pepsi will provide funding in the amount of \$32,000 in 2014 for a low-carbon organic fertilizer trial project in collaboration with the University of Florida Institute of Food and Agricultural Sciences (UF/IFAS)					
Extension.					
University of Georgia	Coca-Cola Company	01/01/19 – 12/31/28	–	–	–
[University of Georgia asked vendors to respond to the RFP, stating:]Describe any contributions and/or your partner(s) contributions to the UGA campus. Please describe your approach to partnering with the University of Georgia, both specific to Auxiliary Services and to the University of Georgia as a whole. If you already partner with the University of Georgia in any capacity, please describe your current involvement. [Coca-Cola’s response to the RFP, which is part of the contract:] The University of Georgia has been one of our marquee partners in our home-state of Georgia for decades, with our Foundation and Company giving extending back at least 50 years. We have taken it on as a corporate challenge to support UGA’s mission to continue to grow, prosper, and achieve its three-part mission of teaching, research, and public service. We take extreme pride in our partnerships within our home state of Georgia and go the extra mile to ensure we’re leveraging all resources – from time to talent to financial resources – for the benefit of our partnership. With the University of Georgia, our partnership is not the extension – but rather the rule. Beyond our beverage business contract, we have a number of partnerships throughout the University including Terry College of Business, Grady College of Journalism, Academics and Athletics. Over the years, we’ve provided financial and leadership support to the University Marketing Center & Marketing Studies; the establishment of Athletic Training Curriculum and have supported a number of forums and events at UGA like the Nunn Forum and Leadershape Georgia Forum, along with contributions towards the Coca-Cola Student Lounge. Currently, we support the Peabody Awards as well as the Coca-Cola First Generation Scholars program at UGA. Since we began the Coca-Cola First Generation Scholarship program at UGA in 2007, there have been more than 130 students who have received scholarships, and currently, there are 48students on campus. (Dr. REDACTED himself is a first-generation college student.) Our partnership goes beyond our corporation and sits within the hearts of our associates – a great number of who are proud University of Georgia graduates. These alumni give of their personal time and talent through mentorship and volunteerism on UGA Alumni and Academic Department boards. UGA Alum-turned-Coca-Cola Associates most recently leveraged both personal funds and skilled fundraising to help support the Terry College of Business and the construction of its Business Learning Community. This was spear-headed by retired Coca-Cola senior leaders, REDACTED and REDACTED. Their collective financial support has been recognized by TCOB at the “CEO Honor Roll level” amassing significant funds towards the project and inspiring the creation of the Coca-Cola Plaza at Terry College. This Plaza will be open and operational in the Fall of 2019. UPDATES:					
<ul style="list-style-type: none"> • Notable UGA Alum in Coca-Cola Senior Leadership: REDACTED, President of Coca-Cola North America; REDACTED, President Emeritus of Coca-Cola Scholars Foundation • For the past 17 years, the Coca-Cola North America Public Affairs & Communications team has sourced 1–2 students from the Grady College of Journalism to serve as summer interns at The Coca-Cola Company’s global headquarters. To date, more than 25 students have served as interns and four have even transitioned into full-time associate roles! This internship program was spear-headed by retired Coca-Cola Vice President of Brand & Business PR and UGA-Grady Alum, REDACTED. • Coca-Cola PAC also supports Grady’s AdPR Academy program to help address diversity gaps in the ad/pr industries. And this year, we expanded our support by offering one of our internship positions to a student (from USC) who participated in the program. • Peabody Awards: Coca-Cola is a longstanding partner of the internationally known and critically acclaimed Peabody Awards, which are run out of the University of Georgia. We have supported it for 20 + years. The program recognizes stories that matter across electronic media. The Peabody award was created in 1940 and has steadily grown from being the “Pulitzer Prize for Radio” to recognizing excellence in TV, radio, podcasts and digital media. • At this time, approximately 200 UGA Alumni are currently Coca-Cola associates, including REDACTED, Sr. Manager, Brand PR who is a current member of the Grady College Alumni Board to REDACTED, President Emeritus of Coca-Cola Scholars Foundation to the President of Coca-Cola North America, REDACTED. 					

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Table 1 (continued)

University	Beverage company	Year(s)	Has Direct Grant / Gift of Research Funding	Allows Naming Competitor to Acknowledge Grant or Gift	Allows Researching Competitor's Beverage
<p>In addition to the many large and substantial program contributions there is a variety of on-going support from both the company and our individual employees that receive one-off requests. Below is a sampling of a small fraction of support from Coca-Cola and its associates, with many of the items being supported on an annual basis. In addition, UGA Alumnae within our organization contribute to UGA and receive the benefits of a matching gift from Coca-Cola to enhance the wide variety of support.</p> <ul style="list-style-type: none"> • University of Georgia Terry College of Business Alumni Awards and Gala • Annual Gardens of the World Ball • The Coca-Cola First Generation Scholarship Program • 30th Anniversary of President Jimmy Carter's Inauguration Conference • Various Technical Grants • Establishment Of Athletic Training Curriculum • Advertisement Space in the UGA Magazine • The Nunn Forum follow-on initiative • Center For Marketing Studies • Senior Awards Banquet • Georgia Economic Outlook Luncheon • Contribution To The History Department • Economic Forum Luncheon • Leadership Uga - The Leadershape Institute • Catalina Del Corral Memorial Scholarship Fund • Endow Grant For Secondary/elementary Teaching • Non-profit Management Program • Purchase Of President's Mansion Furnishings • Center For Marketing Studies • Red Clay Conference Support • World War II Exhibit Sponsorship • Dr. REDACTED Research • University Of Vera Cruz Faculty Development Program • Dooley Library Endowment Fund • University Trust • Cont. - John H. Powers Scholarship Fund • Cont. A.H. "Billy" Sterne Chair In Banking And Finance • Nat'l Conf. On Helping Disabled Women With Full Employment • Memorial Donation • Contribution For The Food Science Department • Contribution To The Dean Rusk Project 					
University of Houston					
Coca-Cola Company	05/01/20 – 04/30/20	–	–	X	
<p>Other water Beverages that are Competitive Products may be used in bona fide academic studies or research conducted by University faculty or students.</p>					
University of Kansas	PepsiCo, Inc	07/01/17 – 06/30/27	–	–	X
<p>Notwithstanding any provision of this Agreement to the contrary, it shall not be a violation of this Agreement for University or its employees to engage in academic research involving a Competitive Product.</p>					
University of Massachusetts – Amherst	Coca-Cola Company	08/01/14 – 07/31/19	–	–	X
<p>[A]ny product used for academic research [is] also excluded from this definition [of Beverage].</p>					
University of Minnesota –Twin Cities	Coca-Cola Company	07/01/08 – 06/30/21	–	–	X
<p>Notwithstanding any provision of this Agreement to the contrary, Competitive Beverages may be purchased, sold, distributed, dispensed (for free sampling or otherwise) or otherwise served as part of any of the following: (a) An academic research project.</p>					
University of Missouri –Columbia	PepsiCo, Inc	08/01/06 – 07/30/17	–	–	X
<p>Competitive products used for academic research ... will be permitted as an exception.</p>					
University of Nebraska – Lincoln	PepsiCo, Inc	07/01/19 – 06/30/29	X	–	X
<p>It shall not be a violation of this Agreement for the University or its employees to engage in academic research involving a Competitive Beverage so long as the research does not involve the sale or distribution of a Competitive Beverage on the Lincoln Campus.</p> <p>[PepsiCo's response to the RFP, which is part of the contract:]LinPepCo Is Proud To Support UNL Student Life Programs Including: Undergraduates in Creative Activities & Research Experience Program (UCARE)</p> <p>Supporting undergraduate research in the arts, education, engineering, humanities and the traditional sciences like chemistry, biology, and physics.</p>					
University of North Carolina – Chapel Hill	PepsiCo, Inc	08/06/14 – 08/05/24	–	–	–
<p>[PepsiCo's response to the RFP, which is part of the contract:]</p> <p>During the time Dr. REDACTED has served in this CSO [Chief Scientific Officer] role, PepsiCo has expanded investment in R&D, recruiting highly regarded clinical scientists, global health policy makers and medical experts and has launched research projects with leading universities and other institutions around the world.</p>					
University of Oklahoma –Norman Campus	Coca-Cola Company	08/01/18 – 07/31/28	–	–	X
<p>Notwithstanding any provision of this Agreement to the contrary, it shall not be a violation of this Agreement for OUNC or its employees to engage in academic research involving a Competitive Beverage. If such research involves sales of Competitive Beverages on Campus, all such sales will be temporary in nature and made solely for research purposes. OUNC will notify Sponsor of the sales as soon as OUNC becomes aware of such sales, provided that, in the judgment of OUNC, said notification can be made without compromising or having a negative effect on such research.</p>					
University of South Florida	Coca-Cola Company	08/01/02 – 07/31/20	–	–	X

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Table 1 (continued)

University	Beverage company	Year(s)	Has Direct Grant / Gift of Research Funding	Allows Naming Competitor to Acknowledge Grant or Gift	Allows Researching Competitor's Beverage
Beverages researched, developed, owned and/or licensed by University (e.g. Kegenix) may be served on Campus, but will not be sold at retail or served in mass; provided, however, that this exception may not apply to beverages of PepsiCo or its affiliates, to beverages of Dr Pepper Snapple Group, Inc. or its affiliates, to beverages of Cott Corporation or its affiliates, or other national beverage brands.					
TOTAL:	30 contracts (22.9%)	–	3 contracts (2.3%)	3 contracts (2.3%)	26 contracts (19.8%)

^a Exact text from contract except as noted in italics between brackets.

4. Discussion

In this descriptive study of 131 pouring rights contracts between large public universities and beverage companies, we found that nearly one quarter contained provisions related to research. However, few contracts ($n = 3$) contained provisions that made direct grants or gifts of research funding – although one additional contract referenced separate agreements supporting research at that university. Three also contained provisions that allowed universities to acknowledge funding via a grant or a gift from a competing beverage company. Finally, nearly one-fifth of contracts contained provisions allowing the university to conduct research using a competitor's beverage – although one specified that the beverage must be water.

Given the sharp increase in food and beverage industry-sponsored research in the past decade (Bragg et al., 2020), the absence of provisions that made direct grants or gifts of research funding in our study suggests that funding from the beverage industry to university researchers is occurring through mechanisms other than pouring rights contracts. These may include separate contracts (i.e., additional contracts with funding not embedded within the pouring rights contracts) between the beverage company and the university or with individual researchers directly. There are, however, challenges to tracking industry-sponsored research, as there is no central location for documentation. (Margetts and Arab, 2001; Serôdio et al., 2018; Steele et al., 2019) Based on prior studies, evidence of these agreements may be available through FOIA requests for documents other than pouring rights contracts (e.g., other types of contracts, emails) and public announcements. (Bragg et al., 2020; Serôdio et al., 2018; Steele et al., 2019; Serodio et al., 2020).

We also found that 4 contracts contained provisions that allowed universities to acknowledge funding from competing beverage companies. Transparency in research is critical to maintain public trust and academic credibility, and these disclosures are especially important in scientific publications so that readers have the opportunity to assess potential conflicts of interest and bias (International Committee of Medical Journal Editors (ICMJE), 2022). Public announcements about research supported by the beverage industry are one important component (Bragg et al., 2020). Despite this, even after Coke published a “Transparency List” of funded researchers, a study found that this list included fewer than 5% of researchers who disclosed Coke funding in their published studies (Serôdio et al., 2018; Steele et al., 2019). Additionally, we found that 26 contracts allowed for the conduct of research using beverages from competing companies. Universities should be able to conduct research on competing beverages without restrictions. In the absence of such a provision, much is left to interpretation and universities may question their ability to do so. Future studies should consider the practical implications of these provisions in pouring rights contracts and assess whether they facilitate or hinder research.

It is important to note that this study has limitations. First, we did not include all colleges and universities in the US – we were interested in contracts that had the potential to reach greater numbers of students through larger universities, and only examined public universities as private institutions are not subject to public records laws. As a result, our sample included 18% of all public 4-year universities and 5% of all 4-year universities. Thus, generalizability of results is limited. Second,

beverage companies may have other agreements with researchers not reflected in pouring rights contracts. As noted previously, recent evidence suggests that these agreements are not always disclosed or publicized (O'Connor, 2015). Third, some universities provided contracts with text redacted; we were not able to fully code those contracts. Finally, as this was an exploratory study, we did not put forth any pre-specified hypotheses and did not examine differences by geographic region or university characteristics. This is an area for future study.

Nutrition research has become increasingly intertwined with the food and beverage industry (Bragg et al., 2020). Schillinger et al. found that research studies sponsored by or with ties to the beverage industry were more likely to find no association between sugar-sweetened beverage intake and metabolic outcomes related to obesity and diabetes. (Schillinger et al., 2016) Conversely, however, a systematic review found insufficient evidence to quantify the effect of industry sponsorship on nutrition research (Chartres et al., 2016). Some researchers have also highlighted the potential benefits of industry-sponsored research (e.g., decreases in government funding for research) and argue that not all funding from food and beverage companies is harmful (Bragg et al., 2020). Regardless, the scientific community has a responsibility to ensure academic integrity, which includes providing access to information about industry-sponsored research. In this study, we found few references to research in general and very few contracts included explicit grants or gifts of funding for research specifically. Thus, beverage companies do not appear to provide much research funding via pouring rights contracts.

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CRedit authorship contribution statement

Sara E. Benjamin-Neelon: Project administration, Conceptualization, Methodology, Writing – original draft. **Elyse R. Grossman:** Methodology, Investigation, Validation, Writing – review & editing. **Eva Greenthal:** Project administration, Methodology, Investigation, Data curation, Validation, Writing – review & editing. **Stephanie A. Lucas:** Investigation, Validation, Writing – review & editing. **Katherine Marx:** Investigation, Validation, Writing – review & editing. **Martha Ruffin:** Investigation, Validation, Writing – review & editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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