Chen Cohen July 2022

CURRICULUM VITAE

Personal Details

Name: Chen Cohen

Date and place of birth: June 7, 1978, Beer-Sheva, Israel

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Department of Public Policy and Management

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• Education

B.A.: 1998–2001, Ben-Gurion University, Economics, GPA 90, summa cum laude

M.A.: 2001–2003, Ben-Gurion University, Economics, GPA 94, summa cum laude

Advisor: Professor David Wettstein

Title of thesis: Principal-Agent Problem

Ph.D.: 2003–2007, Ben-Gurion University, Economics

Advisor: Professor Aner Sela

Title of thesis: Allocation of Prizes in Winner-Take-All Contests

• Employment History

2019–current—Lecturer, Department of Public Policy & Management, Ben-Gurion University of the Negev, Beer-Sheva.

2013-2019—Senior Lecturer, Ashkelon Academic College.

2008–2019—Instructor, The Aviation Academy, Israel Air Force, Ben-Gurion University of the Negev, Beer-Sheva.

2007-current—Course coordinator, The Open University of Israel.

2007–2019—Instructor, Department of Economics, Ben-Gurion University of the Negev, Beer-Sheva.

2007–2013—Lecturer, Ashkelon Academic College, Ashkelon.

2006–2007—Instructor, Department of Communication, Sapir College, Sderot.

2003–2007—Teaching Assistant, Department of Economics, Ben-Gurion University of the Negev, Beer-Sheva.

• Professional Activities

(a) Positions in academic administration

2019–2020—Chair of Teaching Committee, Department of Public Policy & Management, Ben-Gurion University.

2013–2019—Admission Committee head, Ashkelon Academic College.

(b) <u>Professional functions outside universities/institutions</u>

2019, Co-Organizer of the 11th Annual Conference of the Israeli Chapter of the Game Theory Society, Ben-Gurion University of the Negev.

2008, Co-Organizer of the 3rd Game Theory Conference, The Open University.

(c) Significant professional consulting

Years, Institution/Company, Subject

2016–2020—Auction consultant to Energix Group.

2016–2018—Auctions and Strategy expert consultant to Zer Maadanim (one of the largest catering companies in Israel).

2012–2018—Strategic consultant to C.I.A. real estate.

(d) Membership in professional/scientific societies

2019-current, IPPA—International Public Policy Association

2019-current, Game Theory Society

2020-current, American Economic Association

Educational activities

(a) Courses taught

Name of course, level—Institution(s) (Indicate if jointly taught)

Public Policy, MA—BGU

Preference and Social Choice, B.A—OU¹

Game Theory, B.A—OU, AAC², BGU³, SC⁴

Game Theory, M.B.A—OU

Microeconomics Theory A, B.A—OU

Microeconomics Theory B, B.A—OU

Introduction to Microeconomics, B.A—OU

Firm Finance A and B, B.A—AAC, BGU

Auction and Business Strategy, B.A.—AAC, BGU

Auction and Game Theory, M.A—AAC, BGU

- 1 OU—Open University of Israel
- 2 AAC—Ashkelon Academic College
- 3 BGU—Ben-Gurion University of the Negev
- 4 SC—Sapir College

(b) Research students

- 2021–current—Ishay Rabi, PhD., Ben-Gurion University (subject: Assortative matching contests, jointly supervised with Prof. Sela Aner).
- 2021–current—Roy Darioshi, PhD., Ben-Gurion University (Subject: Strategic Planning of Contest and Conflict Mechanisms).
- 2021–2022—Lilach Rinot Levavi, M.A., Ben-Gurion University (subject: How can we reduce the use of disposable plastic utensils? Examining the determinants of DPU use in a culturally diverse society with Dr. Tehila Kalagy).
- 2020- 2021—Yammit Ittiel, M.A., Ben-Gurion University (subject: Green building, joint supervision with Profs. Schwartz and Pearlmutter).
- 2020- 2021—Ishay Rabi, M.A, Ben-Gurion University (subject: Contest Theory, jointly supervised with Prof. Sela Aner).
- 2020-2021—Roy Darioshi, Thesis Dissertations, Ben-Gurion University (subject: Optimal Favoritism and Maximal Revenue: A Generalized Result).
- 2020- 2022—Dalia Efrat Levai, M.A., Ben-Gurion University (subject: Green building, joint supervision with Profs. Schwartz and Pearlmutter.

- 2021—current—Itay Dabush, M.A., Ben-Gurion University (subject: Economic and social utility of installing photovoltaic systems on affordable-housing rooftops: A game theory model joint supervision with Profs. Schwartz and Pearlmutter).
- 2020–current—Merav Ruimy Tourgeman, M.A., Ben-Gurion University (subject: Increasing the volume of solar fields in Israel, a joint directive with Dr. Ofir Rubin).
- 2021–current—Matan Shitrit, M.A., Ben-Gurion University (subject: An analysis of the optimal mechanism in terms of investment and revenue for construction of solar fields around Israel, Gaza, and Egypt's perimeter fence).
- 2022—current—Machline Elise, Post Doc., Ben-Gurion University (subject: Rethinking remote work and housing: challenges and opportunities in the wake of COVID-19 joint supervision with Profs. Schwartz and Pearlmutter).

• Honors, Fellowships

(a) Honors

2001, Ben-Gurion University, summa cum laude, B.A.

2003, Ben-Gurion University, summa cum laude, M.A.

(b) Fellowships

2001–2003, Ben-Gurion University, M.Sc. Fellowship.

2003–2007, Ben-Gurion University, Ph.D. Fellowship.

2005, Open University of Israel, ILS 10,000, for study titled The Disposition Effect in Immediate and Daily Decisions.

2019, Open University of Israel, ILS 24,000, for study titled Using Game Theory Tools to analyze the Israeli Recycling Industry.

Scientific Publications

- a) H-index: ISI—7, Google Scholar 9.
- b) Total number of citations of all articles: ISI 122, Google Scholar 327.
- c) Total number of citations without self-citations: ISI 117.
- 1. Cohen^{PI}, C., & Sela^{PI}, A. (2005). Manipulations in contests. *Economics Letters*, 86(1), 135-139. (Citations: GS 55, ISI 17, JCR: IF 0.381, Q3,131/175, SJR: Q2, A)
- 2. Cohen^{PI}, C., & Sela^{PI}, A. (2007). Contests with Ties. *The B.E. Journal of Theoretical Economics*, Vol. 7, Iss. 1. (Contributions), Article 43. (Citations: GS 29, ISI 8, JCR: IF 0.39, Q4, 190/247, SJR: Q2, A)

- 3. Cohen^{PI}, C., Kaplan^{PI}, T., & Sela^{PI}, A. (2008). Optimal Rewards in Contests. *RAND Journal of Economics*, 39(2) ,434-451. (Citations: GS 75 ISI 34, JCR: IF 1.375, Q1, 42/209, SJR: Q1, A*)
- 4. Cohen^{PI}, C., & Sela^{PI}, A. (2008). Allocation of Prizes in Asymmetric All-Pay Auctions. *European Journal of Political Economy*, 24(1), 123-132. (Citations: GS – 38, ISI - 13, JCR: IF 0.97, Q2,112/305, SJR: Q1, A)
- 5. Cohen^{PI}, C., Shavit^{PI}, T. & Rosenboim^{PI}, M. (2012). The Over-Weighting of Unfair Tie in All-Pay Contest: An Experimental Study. *International Journal of Economic Theory*, 8(3), 301-311. (Citations: GS 4, ISI 1, JCR: IF 0.275, Q4,282/333, SJR: Q2, B)
- 6. Cohen^{PI}, C., & Shavit^{PI}, T. (2012). Experimental Tests of Tullock's Contest with and without Winner Refunds. *Research in Economics*, 66(3), 263-272. (Citations: GS 9, ISI 5, SJR: Q3, B)
- 7. Rosenboim^{PI}, M., Shavit^{PI}, T., & Cohen^{PI}, C. (2013). Do bidders require a monetary Premium for Cognitive effort in an auction?. *The Journal of Socio-Economics*, 42, 99–105. (Citations: GS 10, ISI 7, JCR: IF 0.505, Q3, 240/333, SJR: Q1, B)
- 8. Cohen^{PI}, C., & Schwartz^{PI}, M. (2013). Minimizing Shirking in Auctions and Tournaments. *Theoretical Economics Letters*, Vol. 3(4), 197-201. (Citations: GS 1)
- 9. Shavit^{PI}, T., Rosenboim^{PI}, M. & Cohen^{PI}, C. (2013). Does the Color of Feedback Affect Investment Decisions? *International Journal of Applied Behavioral Economics*, 2(3), 15-26. (Citations: GS 8)
- 10. Cohen^{PI}, C., Pearlmutter^{PI}, D., & Schwartz^{PI}, M. (2017). A game theory-based assessment of the implementation of green building in Israel. *Building and Environment*, 125, 122-128. (Citations: GS 36, ISI 29, JCR: IF 4.539, Q1, 2/128, SJR: Q1)
- 11. Cohen^{PI}, C., Levi^{PI}, O. & Sela^{PI}, A. (2018). All-Pay Auctions with Asymmetric Effort Constraints. *Mathematical Social Sciences*, 97, 18-23. (Citations: GS 3, JCR: IF 0.540, Q3, 365/542 SJR: Q2, A)
- 12. *Cohen^{PI}, C., Pearlmutter^{PI}, D., & Schwartz^{PI}, M. (2019). Promoting Green Building in Israel: A Game Theory-Based Analysis. *Building and Environment*, 163, 106227. (Citations: GS 18, ISI –13, JCR: IF4.971, Q1, 4/134, SJR: Q1)
- 13. *Cohen^{PI}, C., Halfon^{PI}, E., & Schwartz^{PI}, M. (2021). Trust between municipality and residents: A game-theory model for municipal solid-waste recycling efficiency. *Waste Management*, 127, 30-36. [Outstanding Article Award on Energy and Sustainability—Ben-Gurion University]. (Citations: GS –6, ISI –2, JCR: IF 7.145, Q1,29/274, SJR: Q1)

- 14. *Cohen^{PI}, C., & Nitzan^{PI}, S. (2021). Advantageous defensive efforts in contests. *Economics Bulletin*, 41(3), 2147-2157. (SJR: Q3)
- 15. *Cohen^{PI}, C., Darioshi^{PI}, R., & Nitzan^{PI}, S. (2021). Optimal favoritism and maximal revenue: A generalized result. *European Journal of Political Economy*, 102138. (JCR: IF 2.366, Q2, 138/376, SJR: Q1, A)

• Accepted for publication

- 16. *Cohen^{PI}, C. & Zax^{PI}, O. (forthcoming). The Marginal Line on your Resume. *Metroeconomica* (JCR: IF 1.617, Q3, 227/376, SJR: Q2)
- 17. *Cohen^{PI}, C., Nitzan^{PI}, S., Baharad^{PI}, R. (forthcoming). Litigation with Sabotage. *International Review of Law and Economics*. (JCR: IF 0.928, Q3, 105/151, SJR: Q1)

• Invited Lectures at Conferences

- 1. Cohen, C., Levi, O., & Sela, A. All-Pay Auctions with Asymmetric Effort Constraints. Theory and Evidence, Norwich, UK, June 2017.
- Cohen, C., Pearlmutter, D., & Schwartz, M. A game theory-based assessment of the implementation of green building in Israel. Toward Greener Construction, The International Union of Area Studies, The Israeli Branch, Annual Conference, 2018, Ben-Gurion University of the Negev.
- Cohen, C., Levi, O., & Sela, A. All-Pay Auctions with Asymmetric Effort Constraints.
 Controlling the Expense of Political Contests Using a Modified
 N-players Tullock's Model, ICPP 2019: International Conference on Public Policy,
 Amsterdam, The Netherlands.
- 4. Cohen, C., Rabi, I., & Sela, A. Assortative Matching Contests: XXIX European Workshop on Economic Theory -EWET 2020, Akko, Israel.
- 5. Cohen, C., Halfon, E., & Schwartz, M. Trust between municipality and residents: A game-theory model for municipal solid-waste recycling efficiency. Annual Conference on Science and the Environment. The Israeli Association of Ecology and Environmental Sciences Aspects of promoting environmental policy, 2021, Tel Aviv, Israel.
- 6. Kalagy, T., Cohen, C., & Halfon, E. Examining the effectiveness of a culture-adapted model for policy advancement among the minority population in Israel: The case of waste recycling in ultra-Orthodox society. November 2021. The Israel Democracy Institute, Jerusalem, Israel [Invited Lecture]

^{*} Since appointment.

- 7. Cohen, C., Lagziel, D., Levi, O., & Sela, A. Conference on Mechanism and Institution Design, Singapore, July 2022 The Role of the Second Prize in All-Pay Auctions with Two Heterogeneous Prizes.
- 8. Kalagy, T., Cohen, C., & Halfon, E. Examining the effectiveness of a culture-adapted model for policy advancement among the minority population in Israel: The case of waste recycling in ultra-Orthodox society. 50th Annual Conference on Science and the Environment, Tel Aviv, Israel, July 2022.
- 9. Dabush, I., Cohen, C., Pearlmutter, D., Schwartz, M., & Einat H. Economic and social utility of installing photovoltaic systems on affordable-housing rooftops: A game theory model. 50th Annual Conference on Science and the Environment, Tel Aviv, Israel, July 2022.

• Present Academic Activities

Research in progress

- Cohen, C., Schwartz, M., Ittiel, Y., & Pearlmutter, D. The green building game: A new player revealed. Expected date of completion: Expected date of completion: October 2022.
- Levavi, R. L., Kalagy, T., Cohen, C., & Friedmann, E. How can we reduce the use of disposable plastic utensils? Examining the determinants of DPU use in a culturally diverse society. Expected date of completion: September 2022.
- Dabush, I., Cohen, C., Pearlmutter, D., Schwartz, M., & Einat, H. Economic and social utility of installing photovoltaic systems on affordable-housing rooftops: A model based on the game-theory approach. Expected date of completion: September 2022.
- Kalagy, T., Cohen, C., & Halfon, E. A Culturally Tailored Game-Theory Model to Optimize Municipal Solid Waste Management and Recycling: A Case Study among the Ultra-Orthodox Community in Israel. Expected date of completion: September 2022.
- Cohen, C., Keren-Miriam, Adam., & Kalagy, T. An analysis of the motivation for action for immunization among minorities during the Covid 19: A case study of the Bedouin population in the Negev. Expected date of completion: November 2022.

Books and articles (submitted for publication)

• Cohen, C., Rabi, I., & Sela, A. Assortative Matching Contests.

- Cohen, C., Lagziel, D., Levi, O., & Sela, A. The Role of the Second Prize in All-Pay Auctions with Two Heterogeneous Prizes.
- Cohen, C., Rabi, I., & Sela, A. Assortative matching contests. Centre for Economic Policy Research.
- Cohen C., Darioshi, R., & Shmuel, N. Looking for the Optimal Funding for Competitions?
- Cohen C., Darioshi, R., & Shmuel, N. Risk Management in Inevitable Contests.
- Cohen, C., Darioshi, R., & Nitzan, S. Effort and Self-Restraint in a War Contest.
- Cohen, C., Darioshi, R., & Nitzan, S. Strategic Contest Design with Multiple Objectives.
- Machline, E., Pearlmutter, D., Cohen, C., & Schwartz, M. COVID-19: A catalyst for transforming empty business districts into mixed-use urban centers? The case of Paris.

Research Grants

2021, Ministry of Welfare for research on the socio-economic impact of implementing solar systems in public housing, 60,000 ILS.

Synopsis of research

My doctoral dissertation, supervised by Professor Aner Sela of the Department of Economics at Ben-Gurion University of the Negev, concerns winner-takes-all contests. At that time, the importance of contests was steadily growing all over the world and contests were being applied in a wide range of disciplines. Thus, I found it correct to study the impact of various prize-function structures on the behavior of all players in different types of contests. One of the main issues concerned how a prize function contingent on players' efforts, among other factors, would influence players' behavior and the characteristics of the gain for the contest designer. (The study was published in *Rand*). In another work, I approached the topic from a different point of view: examining designers' ability to formulate prize functions allowing them to manipulate contest outcomes.

After writing the dissertation, I joined Professors Tal Shavit and Mosi Rosenboim in a study of applications, under laboratory conditions, of the theoretical models described in the dissertation. The goals were determining whether equilibria predicted by theory recur under lab conditions and, whenever a behavioral bias was found to be present, to propose justifications for it.

Later on, I joined Professors David Pearlmutter and Moshe Schwartz in an examination of green construction, using game-theory tools. The article, published in 2017, presented an important dilemma in green construction among contractors, buyers, and government. Using a broad form of game modeling, we showed that the players are caught in a "prisoner dilemma" but could be moved toward more efficient equilibria by applying appropriate policy. This work inspired additional studies on the topic one of them published two years later by the three of us

and including a qualitative component. In this study, we interviewed important players in the field shedding light on questions unanswered in the previous study.

Later in my research, I applied the game theory tools for waste separation in the municipal authorities. With my co-authors Professor Moshe Schwartz and the student Einat Halfon, I presented a game between a municipal authority and its residents from a strategic perspective, showing how a game can cross from a passive to an active equilibrium through a mixed-strategy equilibrium, thus identifying variables that can help the system to enhance its efficiency.

In another work, co-authored with Dr. Tehila Kalagy and Einat Halfon, I looked into the optimal mechanism for waste separation in municipal authorities by integrating the community rabbi as a confidence-building player who mobilizes players for effective cooperation, while upholding the interests of all game participants. We used interviews with community rabbis to improve our understanding of the players' interests. After formulating the utility functions of all the players, we identified possible game equilibria and pointed to mechanisms that would yield the most efficient one.

In conjunction with Dr. Tehila Kalagy Dr. Enav Friedmann, and the student Mrs. Lilach Rinot Levavi, variables were sought that may enhance the efficiency of the current reform that aims to reduce the use of disposable plastic utensils. In this study, we examined the motives behind DPU use in Israel by administering a questionnaire to 407 persons, 204 from the general Jewish population and 203 Ultra-Orthodox, to investigate motives for DPU use in a multicultural society. The questionnaire addresses disposable plastic utensils use, awareness of plastic health problems, attitudes toward plastic problems, and influential figures.

After obtaining funding from the Ministry of Social Services, we set out to investigate the ability to install PV panels on rooftops of affordable-housing buildings. As the study continued, an article was co-written with Mr. Itay Dabush, Prof. David Pearlmutter, Prof. Moshe Schwartz, and Mrs. Einat Halfon, presenting a mechanism based on game-theory tools for the creation of joint projects between government ministries and affordable-housing developers and tenants. In addition, together with the student Mr. Matan Shitrit, we are investigating the viability of building solar farms in the Gaza Strip, on the grounds of localities along the Gaza perimeter together with the Gaza population. Generally speaking, the system of solar-energy auctions and regulations in Israel is unique and intriguing. In conjunction with Dr. Ofir Rubin and Mrs. Merav Ruimy Tourgeman, we are examining the structure of the electricity market in Israel and its equilibrium expectation over the years, with emphasis on its future expected level of concentration.

The issues I explore in my environmental studies are important in the broader field of public policy.

I am collaborating with Professor Shmuel Nitzan and Roy Darioshi in a study of selected issues in contests. The aim is to determine how a contest designer wishing to maximize more than one goal function should make his or her choice. We examine contests in which participants have to choose more than one decision variable while two variables may affect the participants' gain in different directions.

In the future, I intend to keep applying game-theory tools to environmental issues. These studies will also examine social and environmental utilities apart from economic variables, to gain a broad holistic view of environmental projects. In regard to contest research, I intend to carry out a broad observation of concurrent contests, in which each player can choose one in which to take part while the designer can limit the number of players in each.

Teaching Statement

For more than twenty years, I have been teaching a broad range of courses at the University and am well aware of the need to adjust my teaching methods to the course at hand. When I teach quantitative courses such as in Economics, I find it essential to explain the reasoning behind the formulae and encourage students to perform their calculations logically and not only to use formulae in a technical manner.

Over the years, I have found it advisable to begin my courses with a debate over current economic situations that reflect a dynamic similar to the one I wish to teach, and only afterwards to present the mathematical side in full. In recent years, one of the main courses that I teach concerns itself with auctions. The course combines vast theoretical knowledge about auctions, including types of auctions, how they are written, and what they are optimally intended for, with quantitative knowledge about the optimal way to bid on an auction and the most profitable strategy for those who write the auction. In this course, I find it very important to integrate the students into the learning process by dividing them into groups, having them analyze real auctions from different areas, and asking them to present their analyses to the whole class. The analyses should be in-depth, introduce the field in which the auction is taking place, and, as far as possible, analyze the outcomes. By coping with real tenders and presenting their entire findings to the class, students acquire familiarity with the material along with executive capabilities.

In the past three years, I have been teaching a required course called Public Policy. This unique course introduces key concepts and theories from the world of public policy as well as situation analyses using tools from various disciplines such as game theory. In this course, I instruct students to analyze some problem, to understand and present it with all its characteristics, show how the state chooses to deal with it, and even explain how, in their opinion, the treatment can be improved. Students are allowed to use the full toolkit and set of methods taught in the course and even to combine them. I expect students to display leadership and creativity, particularly in the solutions that they choose to present.

In addition to the courses I teach, I advise two doctoral students and five Masters' candidates. It is very important for me to have these research students engage in matters close to their own disciplines and that also tie into my current research interests. To make this happen, I arrange joint research encounters to encourage brainstorming and sharing of problems and solutions. Since most of my research students hold government positions, I aim to harmonize their research questions with their fields of knowledge and occupational purviews, thus maintaining their interest in the study and ensuring that the knowledge they present is up-to-date.