# Vitae Kenneth Frank

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## **Position:**

2015-Present MSU Foundation Professor of Sociometrics
 2007-Present Professor, Counseling, Educational Psychology and Special Education, College of Education; and Fisheries and Wildlife, College of Agriculture, Michigan State University
 2001-2006 Associate Professor, Counseling, Educational Psychology and Special Education, College of Education; Fisheries and Wildlife, College of Agriculture, Michigan State University
 1994-2000 Assistant Professor, Counseling, Educational Psychology and Special Education, College of Education, Michigan State University

#### **Education:**

Sept 1988	University of Chicago Department of Education, program in Measurement, Evaluation, and			
- Dec 1993	Statistical Analysis, Ph.D.			
1986-1988	University of Michigan School of Education, program in Higher and Adult Continuing			
	Education. Masters of Arts.			
1981-1985	University of Michigan. Major in Statistics and English, Bachelor of Arts.			

#### **Academic Profile:**

Google scholar (as of 01/21/2022): 13396 total citations, h-index of 54.

#### Selected Journals:

American Behavioral Scientist (1: first authored)

American Educational Research Association: Open (1)

American Educational Research Journal (4: 1 equal first authored)

*American Journal of Education* (4)

American Journal of Sociology (3: all first authored)

Child Development (1)

Education, Evaluation, and Policy Analysis (6: 2 first authored)

Elementary School Journal (4)

Global Food Security (1)

Human Dimensions of Wildlife (2)

Journal of Clinical Epidemiology (2: both equal first authored)

Journal of Educational and Behavioral Statistics (2: both 2<sup>nd</sup> author with students as 1<sup>st</sup> author)

Journal of Policy Analysis and Management (2: both first authored)

Journal of Research on Mathematics Education (1: recent student as first author)

*Journal of Research in Science Teaching* (1: recent student as 1<sup>st</sup> author)

*Nature* (1: 2<sup>nd</sup> author with my student as 1<sup>st</sup> author)

*Nature: Sustainability* (2)

*Network Science* (1: recent student as 1<sup>st</sup> author)

*Organization Science* (1: first authored)

*Organization & Environment* (1)

Policy Studies Journal (1: first authored)

Psychological Methods (1, conditionally accepted Sept 2022)

Proceedings of the National Academy of Sciences (1)

Rationality and Society (1: first authored)

Research Methodology in Strategy and Management (1)

Social Forces (1)

Social Networks (4: all first authored)

Sociological Methods and Research (2: 1 first authored; 1 student first author)

Sociological Methodology (1: equal first authored with my student)

Social Science Quarterly (1)

Sociology of Education (4: 2 first authored)

Teachers' College Record (13: 2 first authored)

## Publications (broken down by research strand at https://sites.google.com/msu.edu/kenfrank)

#### Guest Editorships:

#Cloud2Class: Reinventing the Study of Teacher Professionalism, Knowledge, and Practice in the 21<sup>st</sup> Century. Special Issue of the *Teachers College Record*, 2020.

#Cloud2Class: Social Media in Education. Yearbook Issue of the Teachers College Record, 2019.

#Cloud2Class: The Disruption and Reorganization of Access and Use of Educational Resources in the 21st Century. Special Issue of the *American Journal of Education*, 2020.

Educators Meet the Fifth Estate: Social Media in Education. Accepted Proposal for a Special Issue of the *Elementary School Journal*, 2021

#### **Articles in Peer Review Journals and Proceedings**

(All co-authored publications include at least one current or former student co-author unless otherwise

specified).

#### 2023

- **Frank, K.A.** and Chen, T. (accepted with minor revisions). "The Evolution of Network Structure Related to Knowledge Flows about Climate Change in the Great Lakes." *Human Ecology Review*.
- Frank, K.A., Lin, Q., Maroulis, S.J. (2023). "<u>Embracing Essential Discourse in Educational Policy about Causal Inferences from Observational Studies: Towards Pragmatic Social Science</u>" *Handbook on Education Policy Research*. Published by the American Educational Research Association. Lora Cohen-Vogel, Janelle Scott and Peter Youngs editors.
- Lin, Q., **Frank, K.A.**, Bathia, S. Draney, K., Thomas, J., Anderson, C.W. (accepted). "Factors Affecting Students' Learning from a Design-based Implementation Research Project in Diverse Education Systems." *Journal of Research in Science Teaching*.
- Bridwell-Mitchell, E., Daly, A.J., **Frank, K.A.**, Spillane, J.P., Bjorklund, P., Caduff, A., Martinez Orbegozoa, E.F. Social Network Analysis: How Relationships and Methods for Studying them Matter for Education Policy. *Handbook on Education Policy Research*. Published by the American Educational Research Association. Lora Cohen-Vogel, Janelle Scott and Peter Youngs editors.
- Lin, Q., Nuttall, A., Zhang, Q., **Frank, K.A.** (2023) "<u>How Do Unobserved Confounding Mediators and Measurement Error Impact Estimated Mediation Effects and Corresponding Statistical Inferences? Introducing R Package ConMed for Sensitivity Analysis." *Psychological Methods*, 28(2), 339. ERIC: ED628395.</u>

## 2022

- Frank, K.A., Lin, Q., Xu, R., Maroulis, S.J., Mueller, A. (on-line first). <u>Quantifying the Robustness of Causal Inferences: Sensitivity Analysis for Pragmatic Social Science</u>. Social Science Research. 110, 102815. ERIC:ED628601
- \*Frank, K. A., \*Lin, Q., \*Maroulis, S., \*Mueller, A. S., Xu, R., Rosenberg, J. M., ... & Zhang, L. 2022. Response to "Three Comments on the RIR method" Journal of Clinical Epidemiology. S0895-4356. \*equal first authorship
- Frank, K.A., Chen, T., Brown, E., Larsen, A., Baule, W. 2022. "A Network Intervention for Natural Resource Management in the Context of Climate Change." Social Networks.
- Kim, J., **Frank, K.A.**, Youngs, P., Salloum, S., Bieda, K. (2022). Teacher Evaluation, Ambitious Mathematics Instruction, and Mathematical Knowledge for Teaching: Evidence from Early Career Teachers. *Journal of Research on Mathematics Education*, 53 (3), 181-203.
- Knake, K. T., Tait, J., & Frank, K. A. (2022). "What Do Campfires and Social Media Have in Common? Improvement." *The Foundational Handbook on Improvement Research in Education*, 443.
- Bayhan, H. G., Mollaoglu, S., Zhang, H., & **Frank, K. A.** (2022). Project Team Collaborations during Time of Disruptions: Transaction Costs, Knowledge Flows, and Social Network Theory Perspective. In *Construction Research Congress (CRC) on Project Management and Delivery, Contracts, and Design and Materials* (pp. 1012-1023).

## 2021

- \*Frank, K. A., \*Lin, Q., \*Maroulis, S., \*Mueller, A. S., Xu, R., Rosenberg, J. M., ... & Zhang, L. 2021. <u>Hypothetical case replacement can be used to quantify the robustness of trial results</u>. *Journal of Clinical Epidemiology*, 134, 150-159. \*authors listed alphabetically.
- Xu, R., Frank, K. A. 2021. <u>Sensitivity analysis for network observations with applications to inferences of social influence effects</u>. *Network Science*, *9*(1), 73-98.
  - Chung, M.G., Frank, K.A., Pokhre, Y., Dietz, T., Liu, J. 2021. Natural infrastructure is key in

- sustaining global urban freshwater ecosystem services. Nature: Sustainability, 4(12), 1068-1075.
- Chen, C., Frank, K. A., Wang, T., & Wu, F. 2021. Global wheat trade and Codex Alimentarius guidelines for deoxynivalenol: A mycotoxin common in wheat. Global Food Security, 29, 100538.
- Burton, S. E., **Frank, K. A.**, Riley, S. J., & Kramer, D. B. 2021. <u>The role of social networks in partnership development with state wildlife agencies</u>. *Human Dimensions of Wildlife*, 1-17.
- Busenbark, J.R., **Frank, K.A.**, Maroulis, S.J., Xu, R., and Lin, Q. 2021. <u>Quantifying the Robustness of Inferences for Strategic Management in Urgent Times: The Impact Threshold of a Confounding Variable and Robustness of Inference to Replacement</u>. *Research Methodology in Strategy and Management*, Volume 13, 127–154.
- Kim, I., Frank, K. A., Wolf, J. R., & Pentland, B. T. 2021. Kim, I., Frank, K., Wolf, JR, & Pentland, BT (2021). "Predicting Process Structure after a Disruption: An Example from the Clinical Documentation Process". In BPM Routine Dynamics Workshop.
- Knake, K. T., Daly, A. J., **Frank, K. A.**, Rehm, M., & Greenhow, C. 2021. Educators Meet the Fifth Estate: Social Media in Education: Elementary School Journal Special Issue. *The Elementary School Journal*, 122(1), 000-000.
- Garcia, A. J., Mollaoglu, S., **Frank, K. A.**, Duva, M., & Zhao, D. 2021. Emergence and Evolution of Network Structures in Complex Interorganizational Project Teams. *Journal of Management in Engineering*, *37*(5), 04021056.
- Liu, W., Ligmann-Zielinska, A., **Frank, K**. et al. High school students' friendship network, physical activity and residential locations a stochastic actor based model. *Comput. Urban Sci.* 1, 13 2021. https://doi.org/10.1007/s43762-021-00014-x
- Knake, K. T., Karimi, H., Hu, S., **Frank, K. A.**, & Tang, J. 2021. Educational Research in the Twenty-First Century: Leveraging Big Data to Explore Teachers' Professional Behavior and Educational Resources Accessed within Pinterest. *The Elementary School Journal*, *122*(1), 000-000.
- Zhao, D., Duva, M., Mollaoglu, S., **Frank, K.**, Garcia, A., & Tait, J. 2021. Integrative Collaboration in Fragmented Project Organizations: Network Perspective. *Journal of Construction Engineering and Management*, 147(10), 04021115.
- Reddy, S.M., Torphy, K., Liu, Y., Chen, T., Masuda, Y.J., Fisher, J.R., Galey, S., Burford, K., **Frank, K.A.** and Montambault, J.R 2021. How different forms of social capital created through project team assignments influence employee adoption of sustainability practices. *Organization & Environment*, 34(1), 43-73.

## 2020

- \*Frank, K.A., \*Kim, J., Salloum, S., Bieda, K. Youngs, P. 2020. From Interpretation to Instructional Practice: A Network Study of Early Career Teachers' Sensemaking in the Era of Accountability Pressures and Common Core State Standards. American Educational Research Journal, 57(6), 2293-2338. \* Equal first authors. https://doi.org/10.3102/0002831220911065
- \*Frank, K.A. and \*Xu, Ran. 2020. <u>Causal Inference for Social Network Analysis</u>. Pages 288-310 in R. Light and J. Moody (Eds.). The Oxford Handbook of Social Networks. New York, Oxford. \* Equal first authors.
- Horn, I., Garner, B., Chen, C., **Frank, K.A.** 2020. Seeing Colleagues as Learning Resources: The Influence of Mathematics Teacher Meetings on Advice-Seeking Social Networks. AERA Open, *6*(2). <a href="https://doi.org/10.1177/2332858420914898">https://doi.org/10.1177/2332858420914898</a>.
- Li, Tenglong, Frank, K.A., (forthcoming). On the probability an inference is robust for internal validity. *Sociological Methods and Research*. https://doi.org/10.1177/0049124120914922
- Chung, M. G., Kapsar, K., **Frank, K. A.**, & Liu, J. 2020. The spatial and temporal dynamics of global meat trade networks. Scientific Reports, 10(1), 1-10.
- Chung, M.G., Herzberger, A., **Frank, K.A.**, Liu, J. 2020 ."International Tourism Dynamics in a Globalized World: A Social Network Analysis Approach. *Journal of Travel Research* Vol 59(3): 387-403.

- Karimi, H., Torphy, K. T., Derr, T., **Frank, K. A.,** & Tang, J. 2020.. Characterizing teacher connections in online social media: A case study on pinterest. In Proceedings of the Seventh ACM Conference on Learning@ Scale (pp. 249-252).
- Karimi, H., Derr, T., Torphy, K. T., **Frank, K. A.**, & Tang, J. 2020. Towards improving sample representativeness of teachers on online social media: A case study on pinterest. In International Conference on Artificial Intelligence in Education (pp. 130-134). Springer, Cham.
- Garcia, A. J., Duva, M., Mollaoglu, S., Zhao, D., **Frank, K. A.**, & Benitez, J. 2020. Expertise Flows and Network Structures in AEC Project Teams. In Construction Research Congress 2020: Project Management and Controls, Materials, and Contracts (pp. 95-104). Reston, VA: American Society of Civil Engineers.
- Torphy, K. T., Brandon, D. L., Daly, A. J., **Frank, K. A.**, Greenhow, C., Hua, S., & Rehm, M. 2020. Social Media, Education, and Digital Democratization. *Teachers College Record*, 122(6), 1-7.

# 2019

- Frank, K.A., Lo, Y., Booth, G.G., Kallunki, J.P. 2019. <u>The Market Dynamics of Socially Embedded Trading</u>. *Rationality and Society*. Vol 3(2): 153-181.
- **Frank, K.A.,** & Torphy, K.T.\* 2019. Social Media, Who Cares? A Dialogue Between a Millennial and a Curmudgeon. *Teachers College Record*. Yearbook issue. 121(14).
- **Frank, K.**, & Pentland, A. P. 2019. Effect of Attribute Alignment on Action Sequence Variability: Evidence from Electronic Medical Records. In *Business Process Management Forum: BPM Forum 2019, Vienna, Austria, September 1-6, 2019: Proceedings* (Vol. 360, p. 183). Springer Nature. No student coauthor.
- Xu, R., **Frank, K. A.**, Maroulis, S. J., & Rosenberg, J. M. 2019. <u>konfound: Command to quantify robustness of causal inferences</u>. The Stata Journal, 19(3), 523-550.
- Brandon, D.L.; Daly, A.J., **Frank, K.A.**, Greenhow, C., Hu, S., Rehm, M., Torphy, K.T.\* 2019. Guest editors for Social Media in Education. *Teachers College Record*. Yearbook issue. \*alphabetical.
- Brandon, D.L.; Daly, A.J., **Frank, K.A.**, Greenhow, C., Hu, S., Rehm, M., Torphy, K.T. \* 2019. Welcome to Cloud2Class: Social Media in Education. *Teachers College Record*. Yearbook issue. 121(14). \*alphabetical.
- Karimi, H., Derr, T., Torphy, K.T., **Frank, K.A.**, Tang, J. 2019. A Roadmap for Incorporating Online Social Media in Educational Research. *Teachers College Record*. Yearbook issue. 121(14).
- Minor, E. C., Saw, G. K., **Frank, K.**, Schneider, B., & Torphy, K. T. 2019. External contextual factors and teacher turnover: the Case of Michigan High Schools. *Teachers College Record*, *121*(11).
- Herzberger, A., Chung, M.G., Kapsar, K., **Frank, K.A.**, Liu, J. (2019). "Telecoupled food trade affects pericoupled trade and intracoupled production." *Sustainability*.11, no. 10: 2908
- Guthrie, A.G., Taylor, W.W., Muir, A.M., **Frank, K.A.**, Regier, H.A. 2019. The role of a binational organization in developing ecosystem-based management in the Great Lakes basin. *Aquatic Ecosystem Health & Management*. 1-17.
- Kim, S., Wallsworth, G., Xu, R., Schneider, B., **Frank, K. A.**, Jacob, B., & Dynarski, S. 2019. The Impact of the Michigan Merit Curriculum on High School Math Course-Taking. *Educational Evaluation and Policy Analysis*, June 2019, Vol. 41, No. 2, pp. 164–188.
- Kim, I., Pentland, B. T., Wolf, J. R., Xie, Y., **Frank, K**., & Pentland, A. P. 2019. Effect of Attribute Alignment on Action Sequence Variability: Evidence from Electronic Medical Records. In *International Conference on Business Process Management* (pp. 183-194). Springer, Cham.
- Wolf, J. R., Xie, Y., Kim, I., Pentland, A. P., **Frank, K.**, & Pentland, B. T. 2019. 619 Team documentation influences clinic complexity and patient satisfaction. *Journal of Investigative Dermatology*, 139(5), S106.

#### 2018

- **Frank K.A.**, Lo Y., Torphy K., Kim J. 2018. <u>Social Networks and Educational Opportunity</u>. pp 297-316 in Schneider B. (eds) *Handbook of the Sociology of Education in the 21st Century*. Handbooks of Sociology and Social Research. Springer, Cham.
- \*Frank, K.A., \*Xu, Ran, Penuel, W.P. 2018. <u>Implementation of Evidence Based Practice in Human Service Organizations: Implications from Agent-Based Models</u>. *Journal of Policy Analysis and Management*. 37(4): 4867-895. \*Co-equal first authors.
- Minor, E. C., Saw, G. K., **Frank, K.**, Schneider, B., & Torphy, K. T. (2019). External contextual factors and teacher turnover: the Case of Michigan High Schools. *Teachers College Record*, 121(11).

Kim, Chong Min, **Frank**, **K.A.**, and James P. Spillane. (2018). "Relationships among Teachers' Formal and Informal Positions and Their Incoming Student Composition." *Teachers College Record* 120(3).

Penuel, W., Lin, Qinyun, **Frank, K.A.** (2018). Building Networks to Support Effective use of Science Curriculum Materials in the *Carbon TIME* Project" for *Networked by Design: Interventions for Teachers to Develop Social Capital* edited by Susan A. Yoon and Kira J. Baker-Doyle. Routledge.

Masuda, Yuta J., Liu, Y., Reddy, S.M.W., **Frank, K.A.**, Burford, K. (2018). Informal boundary spanners for intraorganizational innovation diffusion for sustainability. *Nature: Sustainability*, 1: 190-197. <a href="http://rdcu.be/Kre4">http://rdcu.be/Kre4</a>

#### 2017

- Saw, G., Schneider, B., **Frank, K**., Chen, I.C., Keesler, V. and Martineau, J., 2017. The Impact of Being Labeled as a Persistently Lowest Achieving School: Regression Discontinuity Evidence on Consequential School Labeling. *American Journal of Education*, 123(4), pp.585-613.
- Kim, J., Youngs, P. and **Frank, K**., 2017. Burnout contagion: Is it due to early career teachers' social networks or organizational exposure?. *Teaching and Teacher Education*, 66, pp.250-260.
- Jacob, B., Dynarski, S., **Frank, K.** and Schneider, B., 2017. Are Expectations Alone Enough? Estimating the Effect of a Mandatory College-Prep Curriculum in Michigan. *Educational Evaluation and Policy Analysis*, 39(2), pp.333-360. No student co-author.

#### 2016

Xu, R, and **Frank, K. A.** (2016). The Implications for Network Structure of Dynamic Feedback between Influence and Selection. In *International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction*. Springer International Publishing.

Wilhelm, A.G., Chen, I.C., Smith, T.M. and **Frank, K.A.**, 2016. Selecting Expertise in Context Middle School Mathematics Teachers' Selection of New Sources of Instructional Advice. *American Educational Research Journal*, 53(3), pp.456-491.

Kramer, D.B., Mitterling, A. and **Frank, K.A.**, 2016. Understanding Peer Influence in Hunter Harvest Decisions Using Social Network Theory and Analysis. *Human Dimensions of Wildlife*, pp.1-13.

### 2015

Frank, K.A., Penuel, W.R. and Krause, A., 2015. What Is A "Good" Social Network For Policy Implementation? The Flow Of Know-How For Organizational Change. Journal of Policy Analysis and Management, 34(2), pp.378-402.

Dietz, T., Frank, K. A., Whitley, C. T., Kelly, J., & Kelly, R. (2015). Political influences on

greenhouse gas emissions from US states. *Proceedings of the National Academy of Sciences*, 112(27), 8254-8259. Media Hits.Responses re: causal inference.Conceptualizing and Measuring Environmentalism

Stevens, K., **Frank, K. A.**, & Kramer, D. B. (2015). Do Social Networks Influence Small-Scale Fishermen's Enforcement of Sea Tenure?. *PloS one*, *10*(3), e0121431.

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0121431

Kalafatis, S. E., Lemos, M. C., Lo, Y. J., & Frank, K. A. (2015). Increasing information usability for climate adaptation: The role of knowledge networks and communities of practice. *Global Environmental Change*, 32, 30-39.

Moore, J.A., Xu, R., **Frank, K.**, Draheim, H. and Scribner, K.T., 2015. Social network analysis of mating patterns in American black bears (Ursus americanus). Molecular ecology, 24(15), pp.4010-4022.

Penuel, W.R. and **Frank, K.A.,** 2015. Modes of Inquiry in Educational Psychology and Learning Sciences Research. *Handbook of Educational Psychology, 16.* No student co-author.

Robison, L., Oliver, J. and Frank, K., 2015. Commodity and relational good exchanges: Commodification and decommodification. In 1st International Congress on Applied Sciences: "Social Capital" October 23-24 2015. KONYA/TURKEY 1. ULUSLARARASI UYGULAMALI BİLİMLER KONGRESİ: "SOSYAL SERMAYE" 23-24 EKİM 2015–KONYA/TÜRKİYE (p. 76). No student co-author.

## 2014

**Frank, K.A.** Lo, Y., Sun, M. 2014. "Social network analysis of the influences of educational reforms on teachers' practices and interactions." *Zeitschrift für Erziehungswissenschaft*. Volume 17, Issue 5, supplement: 117-134.

Pontifex, M. B., Kamijo, K., Scudder, M. R., Raine, L. B., Khan, N. A., Hemrick, B. Evans, E.M., Castelli, D.M., **Frank, K.A.**, & Hillman, C. H. (2014). V. The Differential Association of Adiposity and Fitness with Cognitive Control in Preadolescent Children. *Monographs of the Society for Research in Child Development*, 79(4), 72-92. No student co-author.

Sun, M., Wilhelm, A. G., Larson, C. J., & Frank, K. A. 2014. Exploring Colleagues' Professional Influence on Mathematics Teachers' Learning. *Teachers College Record*, 116(1).

McCabe, Sean Esteban, Brady T. West, Philip Veliz, Kenneth A. **Frank**, and Carol J. Boyd. "Social contexts of substance use among US high school seniors: a multicohort national study." *Journal of Adolescent Health* 55, no. 6 (2014): 842-844. No student co-author.

## 2013

Frank, K.A., Maroulis, S., Duong, M., and Kelcey, B. 2013. What would it take to Change an Inference?: Using Rubin's Causal Model to Interpret the Robustness of Causal Inferences. Education, Evaluation and Policy Analysis. Vol 35: 437-460.

Frank, K.A., Muller, C., Mueller, A.S., 2013. <u>The Embeddedness of Adolescent Friendship Nominations: The Formation of Social Capital in Emergent Network Structures</u>. *American Journal of Sociology*, Vol 119(1):216-253.

Penuel\*, W. R., **Frank**\*, K. A., Sun, M., Kim, C., & Singleton, C. 2013. The organization as a filter of institutional diffusion. *Teachers College Record*, *115*(1), 306-339. \*co-equal authors.

Sun, M., Penuel, W. R., **Frank**, K. A., Gallagher, H. A., & Youngs, P. 2013. Shaping professional development to promote the diffusion of instructional expertise among teachers. *Educational Evaluation and Policy Analysis*, 35(3), 344-369.

Sun, M., Frank, K. A., Penuel, W. R., & Kim, C. M. 2013. How external institutions penetrate schools through formal and informal leaders. *Educational Administration Quarterly*, 49(4), 610-644.

Jones, N., Youngs, P., and **Frank, K.A.**, 2013. "The Role of School-Based Colleagues in Shaping the Commitment of Novice Special and General Education Teachers." *Journal of Exceptional Children* 79, no. 3: 365-383.

Qian, Hong, Peter Youngs, and Frank, K.A. 2013."Collective responsibility for learning: Effects on

interactions between novice teachers and colleagues." Journal of Educational Change 14, no. 4: 445-464.

Russell, J. L., Jackson, K. A. R. A., Krumm, A. E., & **Frank, K. A.** 2013. Theories and research methodologies for design-based implementation research: Examples from four cases. *BJ Fishman, WR* Penuel, AR Allen, & Cheng, BH (Eds.). Design based implementation research. National Society for the Study of Education Yearbook, 112(2). No student co-author.

Pogodzinski, B., Youngs, P. and **Frank, K.A.**, 2013. Collegial climate and novice teachers' intent to remain teaching. American Journal of Education, 120(1), pp.27-54.

#### 2012

Frank, K.A., Chen, I-Chien., Lee, Youngmi; Kalafatis, Scott; Chen, Tingqiaol; Lo, Yun-jia; Lemos, Maria. 2012. Network Location and Policy-Oriented Behavior: An Analysis of Two-Mode Networks of Coauthored Documents Concerning Climate Change in the Great Lakes Region. Policy Studies Journal. Volume 40, Issue 3, pages 492–515.

Pogodzinski, B., Youngs, P., **Frank, K.A.**, Belman, D. 2012. "Administrative Climate and Novices' Intent to Remain Teaching." *Elementary School Journal*, Vol. 113 (2): pp. 252-275.

Spillane, J., Kim, Chong Min, **Frank, K.A.** 2012. "Instructional Advice and Information Providing and Receiving Behavior in Elementary Schools: Exploring Tie Formation as a Building Block in Social Capital Development." *American Educational Research Journal. Vol 49 no. 6 1112-1145*.

Liu W, Vogt CA, Luo J, He G, **Frank K.A**, et al. 2012. Drivers and Socioeconomic Impacts of Tourism Participation in Protected Areas. PLoS ONE 7(4): e35420. doi:10.1371/journal.pone.0035420.

Penuel, W.R., Sun, M., Frank, K.A., & Gallagher, H.A. 2012. Using social network analysis to study how collegial interactions can augment teacher learning from external professional development. *American Journal of Education*, 119(1), 103-136.

<u>Chen, Xiaodong, Frank, Kenneth A. Dietz, Thomas, and Jianguo Liu. 2012. Weak Ties, Labor Migration, and Environmental Impacts: Toward a Sociology of Sustainability. Organization & Environment. Vol. 25 no. 1 3-24.</u>

#### 2011

**Frank, K.A.** 2011. "Constitution for Effective School Governance." Commentary in *Teacher's College Record*. February 24, ID number 16715.

Frank, K.A., Zhao, Y., Penuel, W.R., Ellefson, N.C., and Porter, S. 2011. <u>Focus, Fiddle and Friends:</u> <u>Sources of Knowledge to Perform the Complex Task of Teaching</u>. *Sociology of Education*, Vol 84(2): 137-156.

N. J. Leonard, W. W. Taylor, C. I. Goddard, **K. A. Frank**, A. E. Krause & M. G. Schechter. 2011. Information Flow within the Social Network Structure of a Joint Strategic Plan for Management of Great Lakes Fisheries, *North American Journal of Fisheries Management*, 31:4, 629-655. Available: <a href="http://dx.doi.org/10.1080/02755947.2011.603651">http://dx.doi.org/10.1080/02755947.2011.603651</a>

#### 2010

Cannata, M. McCrory, R. Sykes, G. Anagnostopoulos, D., **Frank, K.A.** 2010. Exploring the Influence of National Board Certified Teachers in Their Schools and Beyond. *Educational Administration Quarterly* 46(4) 463–490.

Penuel, W. R., Riel, M., Joshi, A., & Frank, K. A. 2010. The alignment of the informal and formal supports for school reform: Implications for improving teaching in schools. *Educational Administration Quarterly*, 46(1), 57-95.

Mueller, A.S., Pearson, J. Muller, C., **Frank, K.A.**, Turner, A. 2010. Sizing Up Peers: Adolescent Girls' Weight Control and Social Comparison in the School Context. *Journal of Health and Social Behavior*. 51(1) 64–78

Belman, D., Kelso, R., Ormiston, R., Schriver, W., **Frank**, **K.A.** 2010. "The Effect of Project Labor Agreements on the Cost of School Construction in Massachusetts" *Industrial Relations*. Vol 49 (1): 44-60.

Muller, C., Riegle-Crumb, C., Schiller, K.S., Wilkinson, L., **Frank, K.A**. 2010. Race and Academic Achievement in Racially Diverse High Schools: Opportunity and Stratification. *Teachers College Record*. Vol 112 (4) 4-5.

Anagnostopoulos, D., Sykes, G., McCrory, R., Cannata, M., **Frank, K.A.** 2010. "Dollars, Distinction, or Duty? The Meaning of the National Board of Professional Teaching Standards for Teachers' Work and Collegial Relations. *American Journal of Education*. v116 n3 p337-369.

#### 2009

Frank, K.A. 2009 Quasi-Ties: <u>Directing Resources to Members of a Collective</u>. *American Behavioral Scientist.* 52: 1613-1645.

Shaffer, David Williamson, David Hatfield, Gina Navoa Svarovsky, Padraig Nash, Aran Nulty, Elizabeth Bagley, **Ken Frank**, André A. Rupp, Robert Mislevy. 2009. Epistemic Network Analysis: A Prototype for 21st-Century Assessment of Learning. *International Journal of Learning and Media 1*(2):33-53. No student co-author.

Krause, A.E., **Frank, K.A.**, Jones, M.L., Nalepa, T.F., Barbiero, R.P., Madenjian, C.P., Agy, M., Evans, M.S., Taylor, W.W., Mason, D.M., Leonard, N.L. 2009. "Adaptations in a Hierarchical Food Web of Southeastern Lake Michigan." *Ecological Modeling*. Vol 220 (22): 3147-3162.

Jaeger-Miehls, A. L., Mason, D. M., **Frank, K.A.**, Krause, A. E., Peacor, S.D., and Taylor, W.W. 2009. Invasive species impacts on ecosystem structure and function: A comparison of Oneida Lake, New York, USA, before and after zebra mussel invasion. *Ecological Modeling*. *Vol* 220 (22): 3194-3209.

Jaeger-Miehls, A. L., Mason, D. M., **Frank, K.A.**, Krause, A. E., Peacor, S.D., and Taylor, W.W. 2009. Invasive species impacts on ecosystem structure and function: A comparison of the Bay of Quinte, Canada, and Oneida Lake, USA, before and after zebra mussel invasion. *Ecological Modeling*. *Vol* 220 (22): 3182-3193

Penuel, W., Riel, M., Krause, A., & **Frank, K. A.** 2009. Analyzing Teachers' Professional Interactions in a School as Social Capital: A Social Network Approach. *Teachers College Record* Vol 111 Number 1. pp.124-163.

### 2008

Frank, K.A., Muller, C., Schiller, K. Riegle-Crumb, C., Strassman Mueller, A., Crosnoe, R., Pearson, J. 2008. "<u>The Social Dynamics of Mathematics Coursetaking in High School</u>." *American Journal of Sociology.* Vol 113(16): 1645-1696.

Frank, K. A., Sykes, G., Anagnostopoulos, D., Cannata, M., Chard, L., Krause, A., & McCrory, R. (2008). <u>Does NBPTS certification affect the number of colleagues a teacher helps with instructional matters?</u>. *Educational Evaluation and Policy Analysis*, 30(1), 3-30.

Crosnoe, Robert; Riegle-Crumb, Catherine; Field, Sam; **Frank, K.A.**; Muller, Chandra. 2008. "Peer Group Contexts of Girls' and Boys' Academic Experiences." *Child Development*. Vol. 79(1): 139 – 155. No student co-author.

Mueller, Katrina B., Taylor, William W., **Frank, K. A.**, Robertson, John M. and Dennis L. Grinold 2008. "Social Networks and Fisheries: the Relationship between a Charter Fishing Network, Social Capital and Catch Dynamics." *North American Journal of Fisheries Management*. Vol 28(2): 447-462.

Crosnoe, Robert, Ann Strassman Mueller, and **Frank, K.A.** 2008. "Gender, Body Size, and Social Relations in American High Schools." *Social Forces* 86: 1189-1216.

## 2007

\*Frank, K. A. and \*Min, K. 2007. <u>Indices of Robustness for Sample Representation</u>. *Sociological Methodology*. Vol 37, 349-392. \* co first authors.

Barrett, Jennifer; Pearson, Jennifer; Muller; Chandra; **Frank, K.A.** 2007. "Adolescent Religiosity and School Contexts" *Social Science Quarterly*, Vol 88(4): 1024-1037.

Frisco, Michelle, Muller, C. and **Frank, K.A.** 2007. Using propensity scores to study changing family structure and academic achievement. *Journal of Marriage and Family*. Vol 69(3): 721–741.

#### 2006

Zhao, Yong, Lei, Jing and K.A. **Frank**. 2006. "The Social Life of Technology: An Ecological Analysis of Technology Diffusion in Schools. *Pedagogies*. Vol. 1 (2): 135-149.

\*Field, S. \***Frank, K.A.**, Schiller, K, Riegle-Crumb, C, and Muller, C. 2006. "Identifying Social Contexts in Affiliation Networks: Preserving the Duality of People and Events. *Social Networks* 28:97-123. \*co first authors.

Miyazaki, Yasuo and **Frank**, K.A. 2006. "A Hierarchical Model with Factor Analysis Structure at Level 2" *Journal of Educational and Behavioral Statistics. Vol 31: 125-156.* 

#### 2004

Frank, K. A., Zhao, Y., and K. Borman. 2004. <u>Social Capital and the Diffusion of Innovations within Organizations: Application to the Implementation of Computer Technology in Schools</u>" *Sociology of Education*, 77: 148-171. No student co-author.

Crosnoe, R., Muller, C. and **K.A. Frank**. 2004. Interpersonal Context and the Potential Consequences of Adolescent Drinking. *Social Problems*, 51(2): 288-304.

Pan, W., and **Frank**, K.A., 2004. "A probability index of the robustness of a causal inference," *Journal of Educational and Behavioral Statistics*, 28, 315-337.

Pan, W., and **Frank**, K.A. 2004. "An Approximation to the Distribution of the Product of Two Dependent Correlation Coefficients." *Journal of Statistical Computation and Simulation*, 74, 419-443.

# 2003

Krause, A., **Frank, K.A.**, Mason, D.M., Ulanowicz, R.E. and Taylor, W.M. 2003. "Compartments exposed in food-web structure." *Nature* 426:282-285.

Zhao, Y. and **Frank**, K. A., 2003. "An Ecological Analysis of Factors Affecting Technology Use in Schools." *American Educational Research Journal*, , 40(4): 807-840. No student co-author.

# 2001

Social Capital Interest Group 2001. "Short Papers from the April, 1998 Social Capital Conference at Michigan State University." *Journal of Socio-Economics*, 29, 579-586.

Zhao, Y., Byers, J., Mishra, P., Topper, A., Chen, H., Enfield, M., Ferdig, R., Frank, K.A., Pugh, K., Tan, S.H. 2001. "What do they know? A Comprehensive Portrait of Exemplary Technology-using Teachers." *Journal of Computing in Teacher Education*, Vol 17(2), pp. 24-36.

#### 2000

Frank, K. A. 2000. "Impact of a Confounding Variable on a Regression Coefficient." Sociological Methods and Research, 29(2), 147-194.

Herman, S.E., **Frank**, K.A., Mowbray, C.T., Ribisl, K.M., Davidson, W.S., Bootsmiller, B., Jordan, L., Greenfield, A.L., Loveland, D., Luke, D. A. 2000. "Longitudinal Effects of Integrated Treatment on Alcohol Use for Persons with Mental Illness and Substance Use Disorders." *Journal of Behavioral Health Services and Research*. 27 (3), 286-302. No student co-author.

Saunders, J.L., Leahy M.H., and **Frank**, K.A. 2000. "Improving the Employment Self-Concept of Persons with Disabilities: A Field Based Experiment." *Rehabilitation Counseling Bulletin*, 43(3), 142-149.

**Frank**, K.A., and Fahrbach, K. 1999. "Organizational Culture as a Complex System: Balance and Information in Models of Influence and Selection." Special issue of *Organization Science* on Chaos and Complexity in Organization. *Organization Science*, 10(3): 253-277.

#### 1998

**Frank**, K.A. and Yasumoto, J. 1998. "Linking Action to Social Structure within a System: Social Capital Within and Between Subgroups." *American Journal of Sociology* 104 (3): 642-686. No student coauthor.

**Frank**, K. A. 1998. "The Social Context of Schooling: Quantitative Methods" *Review of Research in Education*, 23, chapter 5: 171-216.

## Pre 1998

**Frank**, K.A. 1993. Identifying Cohesive Subgroups. Unpublished Doctoral Dissertation, University of Chicago.

Frank. K. A. 1995. "Identifying Cohesive Subgroups." Social Networks (17): 27-56.

**Frank**, K. A. 1996. "Mapping interactions within and between cohesive subgroups." *Social Networks* 18: 93-119.

**Frank**, K. A. and Yasumoto, J. 1996. "Embedding Subgroups in the Sociogram: Linking Theory and Image." *Connections* 19 (1): 43-57.

Bidwell, C. E., **Frank**, K.A., and Quiroz, P. 1997. "Teacher Types, Workplace Controls, and the Organization of Schools." *Sociology of Education*, 70 (4): 285-307.

Seltzer, M. H., **Frank**, K.A., & Bryk, A.S. 1994. "The Metric Matters: The Sensitivity of Conclusions Concerning Growth in Student Achievement to Choice of Metric." *Educational Evaluation and Policy Analysis* 16 (1): 41-49.

Lee, V. E. & **Frank**, K.A. 1990. "Students' Characteristics that Facilitate the Transfer from Two-year to Four-Year Colleges." *Sociology of Education* 63 (3): 178-193.

Quiroz, P.A., Gonzales, N. F., and **Frank**, K. A. 1996. "Carving a Niche in the High School Social Structure: Formal and Informal Constraints on Participation in the Extra Curriculum." In *Sociology of Education and Socialization*, edited by A. Pallas, Volume 11. London: JAI Press.

Woolliscroft, J. O., Calhoun, J. G., **Frank**, K. A., & Ten Haken, J. D. 1989. "Medical Students' Perceptions of the Importance of the Medical Data Base to Patient care: Effects of Clinical Experience and Specialty Choice." *Teaching and Learning in Medicine*, 1(1): 21-25.

Ten Haken, J. D., Calhoun, J. G., **Frank**, K. A., Youmans, L. C., & Zelenock, G. B. 1988. "The Surgical Clerkship Experience: Self, Departmental and Institutional Assessment." *American Journal of Surgery*, 156: 155-158.

# **Book Chapters**

Pentland, B.T., Ryan Wolf, J., Xie, Y., Kim, I., **Frank, K**. and Pentland, A. P. (in press) Processual Shadows: What Can We See with Digital Trace Data? in Organizing in the Digital Age: Understanding the Dynamics of Work, Innovation, and Collective Action (Barrett, M., Vaast, E., Langley, A. and Tsoukas, H., Eds.). Oxford University Press.

Penuel, W. R., Lin, Q., Marshall, S., Anderson, C.W., **Frank, K.A**. (2018). "Networked by Design: Interventions for Teachers to Develop Social Capital" in Building Networks to Support Effective use of Science Curriculum Materials in the *Carbon TIME* Project" edited by Susan A. Yoon and Kira J. Baker-Doyle.

- Wilhelm, A. G., Cobb, P., **Frank, K**., & Chen, I. (2018). Teachers' advice networks. In Cobb, P. Jackson, K., Henrick, E., & Smith, T. M., Systems for Instructional Improvement: Creating Coherence from the Classroom to the District Office (pp. 135-148) Cambridge, MA: Harvard Education Press.
- Xiaodong Chen, Wu Yang, Vanessa Hull, Thomas Dietz, **Kenneth A. Frank**, Frank Lupi, and Jianguo Liu. 2016. "Social Capital and Wu Yang, Vanessa Hull Social Norms Shape Human-Nature Interactions" in *Pandas and the People*. Edited by Jianguo Liu, Vanessa Hull, Wu Yang, Andrés Viña, Xiaodong Chen, Zhiyun Ouyang, and Hemin Zhang. Oxford University Press.
- Russell, Jennifer Lin, Jackson, Kara, Krum, Andrew E., and **Kenneth A. Frank** 2013. "Theories and Research Methodologies for Design-Based Implementation Research: Examples From Four Cases."
- Youngs, P., **Frank, K.A.**, Thum, Y.M., & Low, M. 2012. The motivation of teachers to produce human capital and conform to their social contexts. In T. Smith, L. Desimone, & A.C. Porter (Eds.), Yearbook of the National Society for the Study of Education: Vol. 110. *Organization and effectiveness of high-intensity induction programs for new teachers* (pp.248-272). Malden, MA: Blackwell Publishing.
- Penuel, W. R., **Frank, K.A.**, Sun, M., and Kim, C. 2012. Teachers' Social capital and the Implementation of Schoolwide Reforms. Pages 183-200 in Sean Kelly, Editor. *Understanding Teacher Effects*. New York: Teachers' College Press.
- Youngs, P., **Frank, K.A.**, and Pogodzinski, B. 2012. The Role of Mentors and Colleagues in Beginning Elementary and Middle School Teachers' Language Arts Instruction. Pages 161-181 in Sean Kelly, Editor. *Understanding Teacher Effects*. New York: Teachers' College Press.
- **Frank, K.A.** 2011. "Social Network Models for Natural Resource Use and Extraction" in *Social networks and natural resource management: Uncovering the social fabric of environmental governance*. Pp. 180-205. Örjan Bodin & Christina Prell editors. Cambridge: Cambridge University Press.
- **Frank, K. A.**, S. Maroulis, D. Belman, and M. D. Kaplowitz. 2011. The social embeddedness of natural resource extraction and use in small fishing communities. Pages 309-332 *in* W. W. Taylor, A. J. Lynch, and M. G. Schechter, editors. Sustainable fisheries: multi-level approaches to a global problem. American Fisheries Society, Bethesda, Maryland.
- **Frank, K.A.,** Kim, C., and Belman, D. 2010. "Utility Theory, Social Networks, and Teacher Decision Making." Pages 223-242 in Alan J. Daly editor. *Social Network Theory and Educational Change*. Cadimbridge: Harvard University Press.
- Penuel, W.R., **Frank, K.A.**, and Krause, A. 2010. Between Leaders and Teachers: Using Social Network Analysis to Examine the Effects of Distributed Leadership. Pages 159-178 in Alan J. Daly editor. *Social Network Theory and Educational Change*. Cambridge: Harvard University Press.
- **Frank, K. A.**, Mueller, K., Krause, A., Taylor, W., and Leonard, N. (2007). "The intersection of global trade, social networks, and fisheries." Pages 385-423 in Globalization: Effects on Fisheries Resources, William Taylor and Michael G. Schechter and Lois Wolfson editors. New York: Cambridge University Press.
- **Frank**, K.A. 2007. ATeacher Networks.@ Pp. 390-393, Volume 2 of the *American High School: An Encyclopedia*" edited by Kathryn Borman, Spencer Cahill, and Bridget Cotner. Westport Connecticut: Praeger.
- Zhao, Y., Lei, J., & **Frank. K**. 2005. Theoretical Innovation and Empirical Testing: Research Design in Educational Technology. In Li, F. L. (ed). <u>Research Methods in Computers for Education (*jisuanji jiaoyu yanjiu fangfa*)</u>. Beijing, China: Beijing Normal University Press.
- **Frank**, K. A. and Zhao, Y. 2005. "Subgroups as a Meso-Level Entity in the Social Organization of Schools." Chapter 10, pages 279-318. *Social Organization of Schools*. Book honoring Charles Bidwell's retirement, edited by Larry Hedges and Barbara Schneider. New York: Sage publications.
- Zhao, Y., **Frank, K.,** & Ellefson, N. 2006. Fostering Meaningful Teaching and Learning with Technology pages 161-179 in Floden R. & Ashburn, E. (Eds.). Meaningful Learning Using Technology What Educators Need to Know and Do. Teachers College Press.

Wellman, B.A. and **Frank**, K.A. 2001. "Network Capital in a Multi-Level World: Getting Support from Personal Communities." In *Social Capital*, edited by Nan Lin, Ron Burt and Karen Cook.. Chicago: Aldine De Gruyter. http://www.chass.utoronto.ca/%7Ewellman/publications/networkcapital/hlmnan10.pdf

**Frank**, K. A. 1995. "Exploring Interrelated Structures: A System Based on p<sub>1</sub> and Influence Models." Proceedings of the International Conference on Social Networks, London England. *Vol* 1, *Methodology*, edited by M. Everett, and K. Rennolls, K. London: University of Greenwich Press.

Bryk, A.S. & **Frank**, K.A. 1991. "The Specialization of Teachers' Work: An Initial Exploration." In *Schools, Classrooms, and Pupils*, edited by S.W. Raudenbush, S. W., and J.D. Willms. New York: Academic Press (Harcourt Brace Jovanovich).

#### Book Review

**Frank**, **K.A.**, Saw, G., and Xu, Ran. 2017. Review of Causality in a Social World by Guanglei Hong for Observational Studies.

#### **Grants:**

2018-2020

2023-2028	Building Resilience to Shocks and Disruptions in Local and Regional Food Systems: An Interdisciplinary Approach (co-PI, NIFA:SAS MICL20022. Brent Ross PI. \$10,000,000)
2023-2026	DISES: Socio-environmental transformation and change following system collapse (co-pi,
2022 2024	NSF/FAIN:2307313, Abigail Bennett PI, \$1,5000,000).
2022-2024	Research Initiation: Explore student virtual collaborations to prepare for future digital education (co-PI, NSF: 2204959. Dong Zhao PI, \$200,000)
2022-2025	Quantifying the Robustness of Causal Inferences: Extensions and Application to Existing Databases. Institute for Education Sciences (PI, R305D220022, \$900,000).
2021-2021	
2021-2021	MiSTEM Network Regions Support for the Michigan Merit Curriculum (PI. MDE: Grand
2021 2022	Valley State University, \$27,311).
2021-2023	Racial Equity in School Discipline for Black Students. (Co-PI Brady Foundation
	Dorinda Carter-Andrews PI. \$192,251)
2021-2024	Collaborative Research: Disruption, Inertia and Resilience in the Dynamics of Healthcare
	Routines. (Co-PI. NSF:2120530, Brian Pentland PI, \$310,161).
2021-2024	Understanding First-Generation College Students' Connections to Support On and Off
	Campus. Institute for Education Sciences. R305A210494-IES, \$1,696,979.
2021-2024	A Mixed Methods Evaluation of an Intervention to Promote Racial Equity in Discipline for
	Black Students (Co-PI, \$600,000+\$200,000 supplement, WTGrant #191346. Dorinda Carter
	PI).
2020-2023	Collaborative Research: Advanced Quantitative and Computational
	Methods for STEM Education Research (PI, \$227,000 to MSU; \$1,000,000 total with the
	University of Chicago. NSF:2025244).
2019-2022	FW-HTF-RM: Intelligent Social Network Interventions to Augment Human
	Cognition for Bolstered Interdisciplinary Interactions in Project Teams (Co-PI. \$1,200,000+
	\$239,000 supplement. NSF: 1928278 Sinem Mollaoglu PI).
2019-2020	Phase II SBIR Rapid Construction of Heterogenous Models. (Co-PI, \$150,000, Kaitlin
2017 2020	Torphy PI. Subaward from Soartech)
2018-2019	Phase II SBIR Rapid Construction of Heterogenous Models. (Co-PI, \$50,000, Kaitlin
2010-2017	Thuse it shift Rupid Constitution of Heterogenous Models. (Co-11, \$30,000, Kaltim

Great Lakes Integrated Sciences and Assessments Center (Co-PI. \$900,000 NOAA. Jeff

Torphy PI. Subaward from Soartech)

Andresen, PI)

- 2018-2021 Understanding Impacts of Social Network Interventions on Engineering Project Outcomes (\$485,056. NSF. Award # 1825678. Co-PI. Sinem Mollaoglu-Scott PI).
- 2017-2020 Antecedents of Complexity in Healthcare Routines. NSF (Co-PI. Brian Pentland PI. \$397,726).
- 2017-2018 AERA. Conference on Teachers' use of Social Media. (\$40,000;Co-PI, Chris Greenhow PI).
- 2017-2018 CBSA intramural grant to study Teachers' use of Social Media. (\$25,000, PI).
- NSF supplement: How Novice Elementary Teachers' Social Networks Affect Ambitious Math Instruction in the Current Evaluation Climate (PI. \$344,186. NSF DRL-1420532)
- 2016-2017 Renewal: Study of the Diffusion of Evidence Based Practices through Networks within the Nature Conservancy. (PI, \$10,000. The Nature Conservancy).
- 2015-2018 Great Lakes Integrated Sciences and Assessments Center (Co-PI. \$483,000 NOAA. Jeff Andresen, PI)
- Study of the Diffusion of Evidence Based Practices through Networks within the Nature Conservancy. (PI, \$9,473. The Nature Conservancy).
- 2014-2017 How Beginning Elementary Teachers' Social Networks Affect Ambitious Math Instruction in the Current Evaluation Climate. (PI. \$600,000 WTGrant).
- 2014-2017 How Novice Elementary Teachers' Social Networks Affect Ambitious Math Instruction in the Current Evaluation Climate (PI. NSF DRL-1420532 \$1,600,600)
- 2014-2019 Sustaining Responsive and Rigorous Teaching Based on Carbon TIME (Co-PI. NSF RC104101 \$6,968,640).
- 2012-2014 Great Lakes Integrated Sciences and Assessments Center (Co-PI. 1.2 Million NOAA, Tom Dietz PI)
- 2012-2017 Investigating and Supporting the Development of Ambitious and Equitable Mathematics Instruction at Scale (\$160,356,NSF, subaward from Vanderbilt, Paul Cobb PI, ESI-0554535 and No. DRL-0830029).
- 2012-2017 Measuring Complex STEM Thinking using Epistemic Network Analysis (\$212,000 subaward for \$2.5M grant, David Williamson Schafer PI. NSF1247262)
- 2010-2015 Institute for Educational Sciences (Co-PI. \$1.7 Million subward for \$6 million, Brian Jacob Pi). The Impact of the Michigan Merit Curriculum and Michigan Promise Scholarship on Student Outcomes. Equal PI with Barbara Schneider, in collaboration with Brian Jacobs and Susan Dynarski, University of Michigan
- 2010-2011 Great Lakes Climate Change Science & Education Systemic Network. (subaward for \$180,000 National Science Foundation).
- Designing Learning Organizations for Instructional Improvement in Mathematics (subaward Vanderbilt University, primary grantor National Science Foundation): (\$110,000).
- Evaluation of the National Writing Project (SRI International, primary grantor IES): (\$30,000).
- 2009-2010 The Forum For Youth Investment (primary grantor, WT Grant): (\$35,000). Evaluation of Youth Program Quality Intervention Trial.
- Fulbright specialists (\$15,000). Turku Finland. Social Networks consulting and lectures.
- 2008-2009 The Forum for Youth Investment (primary grantor, WT Grant): (\$35,000). Evaluation of Youth Program Quality Intervention Trial.
- 2006-2010 PI; NSF: Human and Social Dynamics: (\$750,000): To Study the Implementation of Practices Related to No Child Left Behind. Ken Frank and William Penuel PI. 1 0624307 / 0624284
- 2006-2008 Co-Investigator; Carnegie (\$385,000): Study of Teacher Retention and Student Learning In Urban Michigan Districts. Peter Youngs PI.
- 2006-2007 PI. Spencer Foundation (\$15,781). Conference: Research Exchange on Teacher Networks.
- 2003-2007 PI; SRI (\$80,000 + \$15,000 supplement): Social Capital and the Implementation of

	Technology and other Reforms in Schools. NSF original funder, with William Penuel PI.
2004-2005	PI; Michigan Sea Grant (\$15,000) to investigate dissemination trajectories from researchers to
	end-users of fisheries.
2001-2006	Co-Investigator: National Institute of Child Health and Human Development
	(1R01HD040428-01 total costs \$3,641,232) to develop social network measures of peer
	influences in the Adolescent Health Data set and link them to schooling outcomes and make
	them more available to the research community. Chandra Muller PI.
2002-2004	Co-Investigator. National Science Foundation (\$300,000). Link the Adolescent Health Data
	Set to school curricula and course-taking patterns. Chandra Muller PI.
2001	PI; Michigan State Outreach (\$10,000) to study how social community service organizations
	can identify, tap, and extend social capital as they implement programs and respond to
	community needs.
1999-2000	PI; National Academy of Education/Spencer Foundation Postdoctoral Fellowship (\$45,000) to
	study the emergence of school community during the diffusion of innovations.
1999	PI; Social Capital Interest Group at Michigan State University to study how community in
	schools emerges as teachers cultivate social capital with one another (\$9,000).
1997	PI; Michigan State College of Education (\$3,000) in-house grant to conduct simulations
	regarding estimation of effects through a social network.

# Student placements

			Postdoctoral
Tingqiao Chen (advisor)	2021	Google	researcher
			Postdoctoral
Zixi Chen (advisor)	2020	University of Minnesota	researcher
			Postdoctoral
Qinyun Lin (advisor)	2019	University of Chicago	researcher
Ran Xu (advisor)	2019	University of Connecticut	Assistant professor
			Post-doctoral
Tenglong Li (advisor)	2018	Boston University	researcher
Jihyun Kim (advisor)	2017	Lehigh University	Assistant professor
			Lead Researcher and
			Founder of the
			Teachers In Social
Kaitlin Torphy (advisor)	2014	Michigan State University	Media
John Lane (post-doctoral supervisor)	2014	Michigan State University	Research associate
Sihua Hu (post-doctoral supervisor)	2014	Northwestern University	Research associate
		University of Michigan (now	Post-doctoral
Yun-jia Lo (advisor)	2012	independent)	researcher
		Gyeongin National University,	
Chong Min Kim (advisor)	2012	Korea	Associate professor
Youngmi Lee	2012	Kyonggi University, Korea	Assistant professor
Min Sun (advisor)	2011	University of Washington	Associate professor
Anna Strassman Mueller (committee			
member and mentor)	2011	University of Indiana	Assistant professor
		Michigan department of	
Vanessa Keesler	2010	education	Deputy superintendent
Ben Kelcey (advisor)	2009	University of Cincinnati	Associate professor

Maroulis, Spiro		Arizona State University	Associate professor
Kyung Seok Min (advisor)	2007	Sejong University, Korea	Professor
Leslie Pearlman (advisor)	2005	EDUCAUSE	Psychometrician
Wei Pan (advisor)	2003	Duke University	Associate professor
		University of Toledo (now	
Ann Krause (post-doc supervisor)	2003	independent)	Assistant professor
Steven Sheldon (advisor)	2000	Johns Hopkins	Associate professor
Yasuo Miyazaki (advisor)	2000	Virginia Tech	Associate professor
		Nan-Tai Institute of	
Yang, Mengli (advisor)	2000	Technology, Taiwan	Research associate

# **Organizing/Service:**

2016-2019: co-chair of the College of Education Equity and Inclusion Committee.

## **Reviews**:

I have reviewed manuscripts for the Journal of the American Statistical Association, American Journal of Sociology, American Sociological Review, Journal of Educational and Behavior Statistics, Sociology of Education, American Educational Researchers Journal, Research on the Sociology of Organizations, American Journal of Education, Teachers' College Record, Educational Researcher, Sociological Forces, Social Networks, Sociological Methods and Research, and Educational Evaluation and Policy Analysis. I have also reviewed for the National Institutes of Health.

#### Editorial

**Boards**:

Associate Editor *Ecology and Society*, 2009-2011. Member of the editorial board of the *American Journal of Sociology* (2002-2003) as a consulting editor. *Sociology of Education* (2001-2002; 2006-2007). *Education, Evaluation and Policy Analysis* (2001-2002). Student editorial board for the *American Journal of Education* (1991).

#### **Recognition and Awards:**

2021	Elected member of the National Academy of Education
2021	Elected Fellow of the American Educational Research Association
2009	Fulbright Specialist.
1999-2000	National Academy of Education/Spencer Foundation Post-doctorate Fellow.
1999	Nominated by my department for the University Teacher/Scholar Award.

- April, 1992 Semi-finalist, national Spencer Foundation Dissertation Fellowships.
- April, 1992 Nominated by The Department of Education for The University of Chicago's Harper Dissertation Fellowship.
- 1988 1992 Doctoral Fellowship from The University of Chicago.

# **Professional memberships:**

Current American Educational Research Association, Division D and Rasch Special Interest Group.

American Sociological Association. International Social Networks Association.

#### SYNERGISTIC ACTIVITIES

- 1) Dr. Frank has developed an algorithm for identifying cohesive subgroups and for embedding subgroup boundaries in a sociogram. This work has appeared in the *American Journal of Sociology, Sociology of Education, Research in Sociology of Education and Socialization, Social Networks, American Journal of Community Psychology*, and the *Journal of Education for Students at Risk*.
- 2) Dr. Frank was a Co-Investigator on the NSF-funded Science Achievement and Health Behavior: High School Curriculum, Social Context, and Opportunity to Learn (REC-0126167), which examined the effects of the mathematics and science course experiences of high school students in the 1990s in terms of their curricular exposure, their course taking progress, and the social and structural contexts of their experiences and learning.
- 3) Dr. Frank is a Co-Investigator on the NICHD and NSF funded *Adolescent Health and Academic Achievement* (HD40428, REC-0120282) project which collected high school transcripts for the Wave III sample of the *National Longitudinal Study of Adolescent Health*, and which is in the process of disseminating the new data set component.
- 4) Dr. Frank is a PI (w/William Penuel) on an NSF project (BCS-0624307) to study the implementation of practices related to "No Child Left Behind," and Co-PI (PI: Peter Youngs) of a study funded by the Carnegie Foundation to examine teacher retention and student learning in Michigan districts.
- 5) During 2002-03, Dr. Frank served on the editorial board of the *American Journal of Sociology* as a consulting editor. He also served on the editorial board for *Sociology of Education* during 2001-02 and 2006-07, and for *Education, Evaluation and Policy Analysis* in 2001-02.
- 6) Frank was co-leader of the Statistics Institute for the American Education Research Association in 2005. He conducted a workshop on causal inference for the Department of Sociology at Yale University in February 2007. He has also conducted workshops on social networks at Northwestern University, University of Chicago, SRI International, and Michigan State University. He teaches courses in social network analysis and theory, causal inference, the general linear model and multilevel modeling.

#### **COLLABORATORS AND OTHER AFFILIATIONS**

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