An Examination of the United States' Aging Workforce's Efficiency

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Proposal Summary

The American labor force is aging, with a massive percent change increase in its labor force projected among workers aged 65 years and up. In fact, among women aged 75 years and older, the percent change increase as of 2016 was projected to be 106.8%, with men of the same age projected at 80.4%, by 2026 ("Projections of the labor force, 2016–26," 2017).

Meanwhile, there are a number of careers, including bus drivers, real estate brokers, and more, where workers ages 55 and older already make up at least one-third of the occupation's total employment (Maestas et al., 2016).

This proposal is aimed at securing funding for a thorough collection and examination of labor statistics relevant to understanding what this aging workforce's effect might be on the overall efficiency of the American workforce. As of now, there is somewhat conflicting data on the impact the average aging worker tends to have on their workplace. In 2013, researcher Gary Burtless noted that "the pay premium for older workers is currently between 10 percent and 20 percent of the average wage earned by the younger workers." However, there are some flaws in using this metric to determine productivity, and "The Effect of Population Aging on Economic Growth, the Labor Force and Productivity" suggests the aging workforce has in fact slowed down productivity and GDP growth (Maestas et al., 2016).

Statement of Need

An accurate, thorough examination of how aging workers impact the American labor force is going to be critical to forming meaningful economic projections over the coming decades. As medical technology advances and the country grows in prosperity, Americans are going to live longer. This places economists in the difficult position of needing to reevaluate much of our previous assumptions about labor. If the workforce gets older, and older workers are better educated and in better health than in the past decades, it still remains highly debatable, without better data, what the current effect of workers over 50 years old is on the economy and how to project their future effect.

Goals and Objectives

The primary goal of this research will be to answer a question simple in wording but difficult in practice: *What is the effect of the average older worker on the American workforce?*

As this question is quite broad, it will need to be broken down further to produce meaningful, wider reaching results. The hope will be to research aging workers in a variety of careers, as it is reasonable to expect career paths which are more physically demanding will require more of aging workers than those which are not.

Methodology

This research will begin first by developing a survey that is thorough enough to gather the appropriate data but approachable enough that companies of various sizes can be convinced to permit workers to take it. Dr. Srivastava will hire two part-time interns to collect the research data that she can use to analyze trends and generate reports.

The hope is that identifying information can be kept confidential but, if companies or workers prove hesitant to provide data in which researcher Dr. Babita Srivastava and her associates may have access to identifying information, the surveys may instead be anonymized.

Initial contact will be made with companies within New Jersey, with a focus on trying to get a proportional sample from both rural and urban populations to keep the data more representative of the state as a whole. Depending on the speed at which connections can be made and data collected, it may be possible to expand the data collection to nearby New York and Pennsylvania.

The survey will hope to collect both numeric and non-numeric data points so as to paint an accurate picture of both the effect an aging worker has on the workforce and their *perceived* effect on the workforce. Care will be taken to ensure workers can feel safe in reporting accurately without endangering either their careers or those of aging workers in the same company (which is why the data gathered must be confidential or totally anonymous and why results cannot be shared on a company-by-company basis).

From there, the data will be examined with the appropriate analytical methods to look for patterns (or a lack thereof), notably comparing the productivity and perceived productivity of workers of various age groups. Care will be taken to note things like education levels, work experience, health conditions, and more in order to keep comparisons meaningful, as there are other factors at play in productivity besides age.

Plan of Evaluation

The duration of the project will be 12 months. At the end of each quarter, data collected will be evaluated and a basic report will be generated on notable trends, the detection of outliers or otherwise unusual results coming from a given company (the name of which will likely by anonymized in the report), and other information that can be meaningfully examined with an incomplete data pool.

This quarterly examination will both allow for observations, while data is fresh and manageable, but also will allow for the detection of potential data that may “poison the well” due to either error or intentionally manipulated results.

In the final report of the project, the survey will also be readministered in an effort to detect meaningful changes in the earlier survey results. While this data will not be examined to the degree the earlier survey was, it will be compared to the previous results, changes noted, and published alongside the earlier survey results for future reference.

Budget

The estimated project budget is $60,000 that includes compensation for researcher Dr. Babita Srivastava and two part-time interns. Other expenses are car mileage and meals for the researcher and interns while they are traveling and miscellaneous. A detailed itemized budget projection is provided in the Table below.

Category	Item	Estimate
Compensation	Dr. Babita Srivastava	$25,000.00
Compensation	Two part-time interns $10,000 each	$20,000.00
Travel	Car mileage/meal etc.	$10,000.00
Miscellaneous		$5,000.00
	Total Estimated Expense	$60,000.00

References

Burtless, G. (2013). The Impact of Population Aging and Delayed Retirement on Workforce Productivity. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2275023

Centers for Disease Control and Prevention. (2018, November 16). *Productive Aging and Work*. Centers for Disease Control and Prevention. https://www.cdc.gov/niosh/topics/productiveaging/default.html.

Maestas, N., Mullen, K., & Powell, D. (2016). The Effect of Population Aging on Economic Growth, the Labor Force and Productivity. *RAND Working Papers*. https://doi.org/10.3386/w22452

Mitra Toossi and Elka Torpey, "Older workers: Labor force trends and career options," *Career Outlook*, U.S. Bureau of Labor Statistics, May 2017.

"Projections of the labor force, 2016–26," *Career Outlook*, U.S. Bureau of Labor Statistics, November 2017.

BABITA SRIVASTAVA, PH.D.

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EXECUTIVE SUMMARY

Proficient Adjunct Professor of Business with talent for engaging students in material and improving academic success. Strive to teach course materials, as well as critical thinking and success-building skills. Current Post-Doctoral Research Associate at William Paterson University with presenting and publishing experience. Ph.D. in Economics with twenty publications in peer reviewed journals, books, and conference proceedings. Over five years of in-person, online and hybrid teaching experience.

EXPERIENCE

01/2018 – PRESENT
ADJUNCT PROFESSOR, WILLIAM PATERSON UNIVESRITY, NJ

- Teaching Principles of Economics, Microeconomics (Honors), Macroeconomics, Statistics I & II and Business Strategy and Policy
- In-person, hybrid, and online teaching
- Developed innovative and engaging teaching methodology
- Mentored Business Honors Projects
- Advisor, Research Scholarship Council- responsible for selecting students for merit scholarship
- Leading Diversity and Inclusion committee, supporting Asian culture at William Paterson University
- Received outstanding faculty and student's evaluations

2016 – PRESENT
POST-DOCTORAL RESEARCH ASSOCIATE, WILLIAM PATERSON UNIVERSITY, NJ

- Completed research projects in conjunction with Dr. Raza Mir. Research topics include: Catalysis, Leapfrogging, Economic Offshoring, Economic Structure, Firm Theory, etc.
- Presented four research papers from 2017 to present and they are as follows: *Merging Economics and Human Resource Management: The Case of Offshoring* (2017, presented EAM, published JOP), *The Knowledge Based View of the Firm: An Assessment* (2018, presented EAM, published AJM), *Integrating Dynamic Capabilities and Industry Structure* (2019, presented EAM & AEA, accepted OJM) and *Offshoring and the new age employee: Emerging issues in human resource management* (2020, presented EEA & AEA).

- Currently researching on further theories of the firm and the working title of the paper is *Beyond Economic Performance: Toward A Social Theory of The Firm*. It has been accepted to be presented at the 2021 EAM Conference.

09/2019 – PRESENT
ADJUNCT PROFESSOR, DESALES UNIVESITY, PA
- Teaching Economics of Public Issues and Macroeconomics
- In-person, hybrid, and online teaching
- Developed curriculum and examinations for courses
- Prepared on-line course lectures using Panopto and Zoom and delivered to students on Blackboard
- Received outstanding faculty and student's evaluation

07/2005 – 12/2009
MANAGER, LITTLE ACHIEVERS, NJ
- Successfully managed resource planning and budgeting
- Organized activities that developed students emotional and social growth
- Established and maintained a safe environment for students

07/2002 – 06/2003
TEACHING ASSISTANT, UNIVERSITYOF ALLAHABAD, INDIA
- Assisted Professor in preparing class notes
- Conducted exams, graded assignments, and provided feedback on economics solutions and evaluated answer sheets
- Lectured economics to undergraduates as a substitute

EDUCATION

2016-PRESENT
POST-DOCTORAL RESEARCH ASSOCIATE, WILLIAM PATERSON UNIVERSITY, NJ
ADVISOR: PROFESSOR RAZA MIR

2013
PHD. (ECONOMICS), UNIVERSITY OF ALLAHABAD, INDIA
- (evaluated as an equivalent to a U.S. Ph.D.)

2019
CERTIFICATION- SUSTAINABLE BUSINESS STRATEGY, HARVARD BUSINESS SCHOOL

2019
CERTIFICATION- ENTREPRENEURSHIP IN EMERGING ECONOMIES, HARVARD BUSINESS SCHOOL

2019
CERTIFICATION- US PUBLIC POLICY: SOCIAL, ECONOMIC, AND FOREIGN POLICIES, HARVARD BUSINESS SCHOOL

PUBLICATIONS

PEER REVIEWED JOURNALS

1. Srivastava, B. (2020). *Confronting India's energy crisis with solar power*, Pennsylvania Economic Review 27(2), pp 14-24
2. Srivastava, B. and Mir, R, (2020). *Offshoring and new age employee: Emerging issues in human resource management*, Journal of Organizational Psychology 20(6), pp 33-46
3. Srivastava, B. and Mir, R, (2020). *Relating Dynamic Capabilities to Industry Structure: An Integrative Approach to Firm Strategy*, Journal of Management Policy and Practices, 20(5), pp 90-102
4. Srivastava, B. and Mir, R, (2020). *Theory of the firm: A knowledge-based approach*, Organizational Management Journal (Submitted)
5. Srivastava, B. (2020). *Improving the Quality of Higher Education in India by Refocusing from Knowledge to Wisdom*. The ECCSSA Journal. East Coast Colleges Social Science Association, Vol 19
6. Srivastava, B. (2019). *Promoting Cultural in the Classroom: How Teachers Can Create Inclusivity for Multicultural Students*. The ECCSSA Journal. East Coast Colleges Social Science Association, Vol 18, pp 50-60
7. Srivastava, B. (2018). *The Vitality and Sustainability of Solar Power in Combating India's Energy Crisis*, East Coast College Association Science Association, Vol 17, pp 74-85
8. Srivastava, B., (2017). *Solar Energy Generation in Uttar Pradesh: India Using the United States of America as a Model*, IJASSH, 5 (4), pp. 1-11
9. Srivastava, B. & Callahan, Q. P. (2016). *Energy Security-Today and Tomorrow*, GIAP, 4(2), pp. 59-67
10. Srivastava, B., Ghosh, P., (1996). *Concern with Current Indian Energy Policies*, Yojana. 4, pp. 51-62

BOOK CHAPTER

1. Srivastava B. (2021). The Macroeconomic Impacts of the COVID-19 on the Renewable energy, IGI Global publication (accepted)

CONFERENCE PROCEEDING

1. Srivastava B. & Mir R (2020). *Offshoring and the new age employee: Emerging issues in human resource management.* Proceedings of the Annual Meetings of the Eastern Academy of Management
2. Srivastava, B. (2019). *Impact of green growth on sustainable growth of India*, Proceedings of the Pennsylvania Economic Association annual conference

3. Mir, R. & Srivastava, B. (2019). *Integrating Dynamic Capabilities and Industry Structure*. Proceedings of the Eastern Academy of Management
4. Mir, R. Nayeem, M.A. & Srivastava, B. (2018). *The Knowledge Based View of the Firm: An Assessment*. Proceedings of the Eastern Academy of Management
5. Srivastava, B., (2017). *Poverty in India and the role Energy Plays: How the Energy Sector Helps and Hinders Rural India*, Proceedings of the, 70th New York State Economic Association, pp. 93-98
6. Srivastava, B., (2017). *Potential of Renewable Energy in India*, Proceedings of the Annual Meetings of Pennsylvania Economic Association, pp 96-103
7. Mir. R. & Srivastava B. (2017). *Merging Economics and Human Resource Management: The Case of Offshoring,* Proceedings of the Annual Meetings of the Eastern Academy of Management
8. Srivastava, B., (2014). *Ecological Security and Fundamental Changes in Agriculture for Sustainable Food Security. Food Security in India,* The Challenges Ahead, pp. 47-49

2.

CONFERENCES

PRESENTATION

1. Green growth and its impact on the sustainability of energy in India, Eastern Economic Association, February 25-28, 2021 (online)
2. Toxic pollution in India: using policy, education, and green energy to increase Air Quality, ECCSSA, July 30, 2020 (online)
3. Offshoring and the new age employee: Emerging issues in human resource management, 57th Annual Meeting, Eastern Academy of Management, June 24-26, 2020 (online)
4. Impact of Energy Crisis in the Growth of Indian Economy, Eastern Economic Association, February 27 – March 1, 2020, Boston, MA
5. Teaching Methodologies in Culturally Diverse Classroom and Improvisation with New Technology, American Economic Association, January 04-06, 2019, Atlanta, GA
6. Impact of Green Growth on the Sustainable Development of India, Pennsylvania Economic Association Annual Conference, May 30 – June 1, 2019, Kutztown, PA
7. Integrating Dynamic Capabilities and Industry Structure, Eastern Academy of Management 56th Annual Meeting, May 8 – 11, 2019, Wilmington, DE
8. Improving the Quality of Higher Education in India by Refocusing from Knowledge to Wisdom, ECCSSA, April 5 – 6, 2019, Herndon, VA
9. Food Security: Problems and Outlook of Malnutrition in India, Eastern Economic Association, February 28 – March 3, 2019, New York City, NY
10. The Efficient Teaching Methodologies in Culturally Diverse Classrooms and Improvisation with New Technology, American Economic Association, January 04-06, 2019, Atlanta, GA
11. Economic Impact of Brain Drain in Developed and Developing Countries at the American Economic Association, January 05-07, 2018, Philadelphia, PA
12. Scarcity of Energy Generation in India, the State of UP and Their Growing Crisis, Southern Economic Association, November 18-20, 2018, Washington DC

13. Environmental Security and Economic Challenges in Agriculture for Viable Food Security in India, The NY State Economic Association, October 5-6, 2018, New York City, NY
14. Mitigation of the Gap in Energy Supply and Demand in the KAVAL Cities of India, Pennsylvania Economic Association, May 31 – June 2, 2018, Altoona, PA
15. Promoting Cultural Diversity in Classrooms: How Leaders of Learning Can Create Academic Inclusivity, ECCSSA, April 6-7, 2018, Herndon, VA
16. The Role of Solar Energy in Poverty Alleviation and Sustainable Development of India, EEA 44th Annual Conference, March 1-4, 2018, Boston, MA
17. Poverty in India and the Role Energy Plays: How the Energy Sector Helps and Hinder Ruler India, NYSEA, October 6-7, 2017, Farmingdale State College, NY.
18. Poverty and Peacemaking, Princeton University, NJ, February 2017
19. Potential of Renewable Energy in India, PEA, June 1-3, 2017, Alvernia University, Reading, PA
20. Renewable Energy: An Alternative and Instructional Leadership Model to Resolve India's Rising Energy Demand, East Coast Colleges Social Science Association, April 7-8, 2017, Herndon, VA
21. Energy Crisis in the Growth of Indian Economy, 43rd EEA annual conference, February 24-26, 2017 New York, NY
22. Uttar Pradesh-Energy Crisis and Potential Solution, EEA, February 25-28, 2016, Washington DC
23. Solar Energy Generation in Uttar Pradesh, India Using the United State of America as a model, Toward a Green Future National Seminar, February 5-6, 2016, University of Allahabad, India
24. Energy security for India, 41st EEA annual conference, February 26-March 1, 2015, New York, NY
25. Energy challenges and renewable energy opportunities for India, 40th EEA annual conference, March 8-9, 2014, Boston, MA
26. Poverty and Opportunity-Evidence of South Asia, International Conference on Contemporary Global Economic Issues, December 12-14, 2014, Allahabad, India
27. Poverty and Peacemaking, Princeton University, NJ, February 2014
28. Women's health in developing countries, Poverty and Peacemaking, Princeton University, September 19-20, 2014, Princeton, NJ
29. Current Energy Scenario in India, Sanskrit University, December 12-14, 2012, Varanasi, India

DISCUSSANT

- Discussant for 15+ conference presentations

CONFERENCE CHAIR

- Chaired 12+ conference sessions

AFFILIATIONS

- International Hindi Association (IHA)
  - President, New Jersey Chapter
- East Coast Colleges Social Science Association (ECCSSA)
  - Secretory, conference organizer and panelist
- University of Allahabad
  - Coordinator, Economists Speak, a global webinar series
- Pennsylvania Economic Association (PEA)
  - Board of Directors
- American Economic Association, Committee on the Status of Women in the Economics Profession
  - Liaison
- Peer Journal Reviewer
  - Eastern Academy of Management