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Correlation of Relative Value Unit Reimbursement in Trauma Surgery with Academic Productivity

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Background

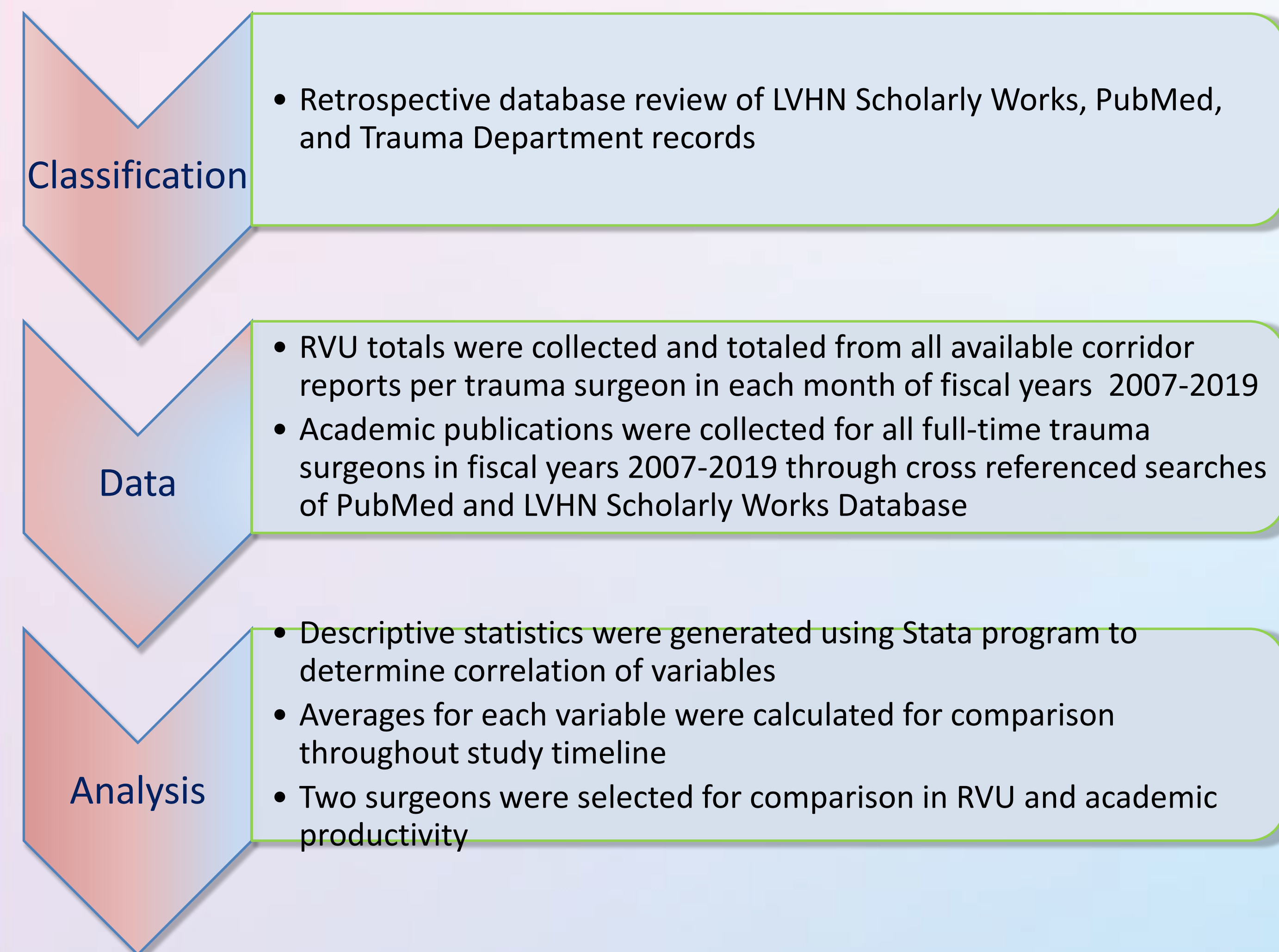


- All surgical cases at LVHN are coded and then assigned work related relative value units (wRVU) from which monetary reimbursements are generated
- RVUs are defined by Medicaid and Medicare and are intended to account for physician work, practice expenses, and professional liability insurance^{3,8,2,1}
- The basis of the traditional RVU model is based on clinical performance, however academic endeavors are left out by this model^{4,10,11}
- There have been proposals of an academic RVU model (aRVU) which would generate values based on assessment of productivity in areas aside from solely the clinical performance such as; research and publications, resident/student teaching, and other services in the administrative and community setting

Objective

- To determine if increased wRVU generation correlates with decreased academic productivity within a fiscal year

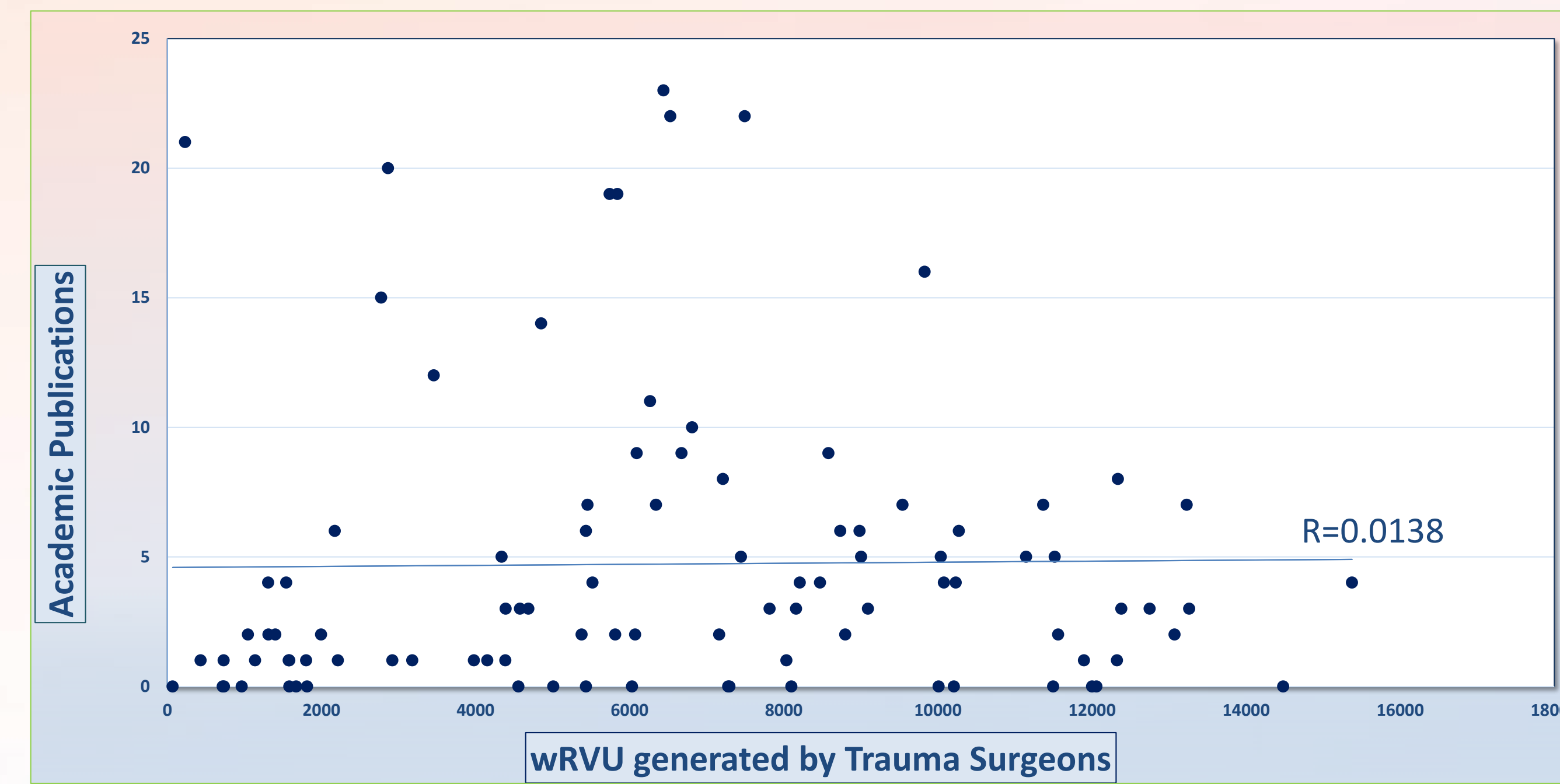
Methods



Results

- Pearson correlation coefficient between total wRVU generation and total academic productivity for each month of fiscal years 2007-2019 was $R=0.0138$

Figure 1: wRVUs Generated Vs. Academic Publications Produced by Trauma Surgeons per Fiscal Year



- The average monthly number of academic publications and RVUs before 2013 were ~5.06 and ~3011.97 respectively
- The average monthly number of academic publications and RVUs after 2013 were ~4.3 and ~7410.72 respectively

Figure 2: Comparison of Average wRVU Generation and Academic Publications Pre and Post 2013

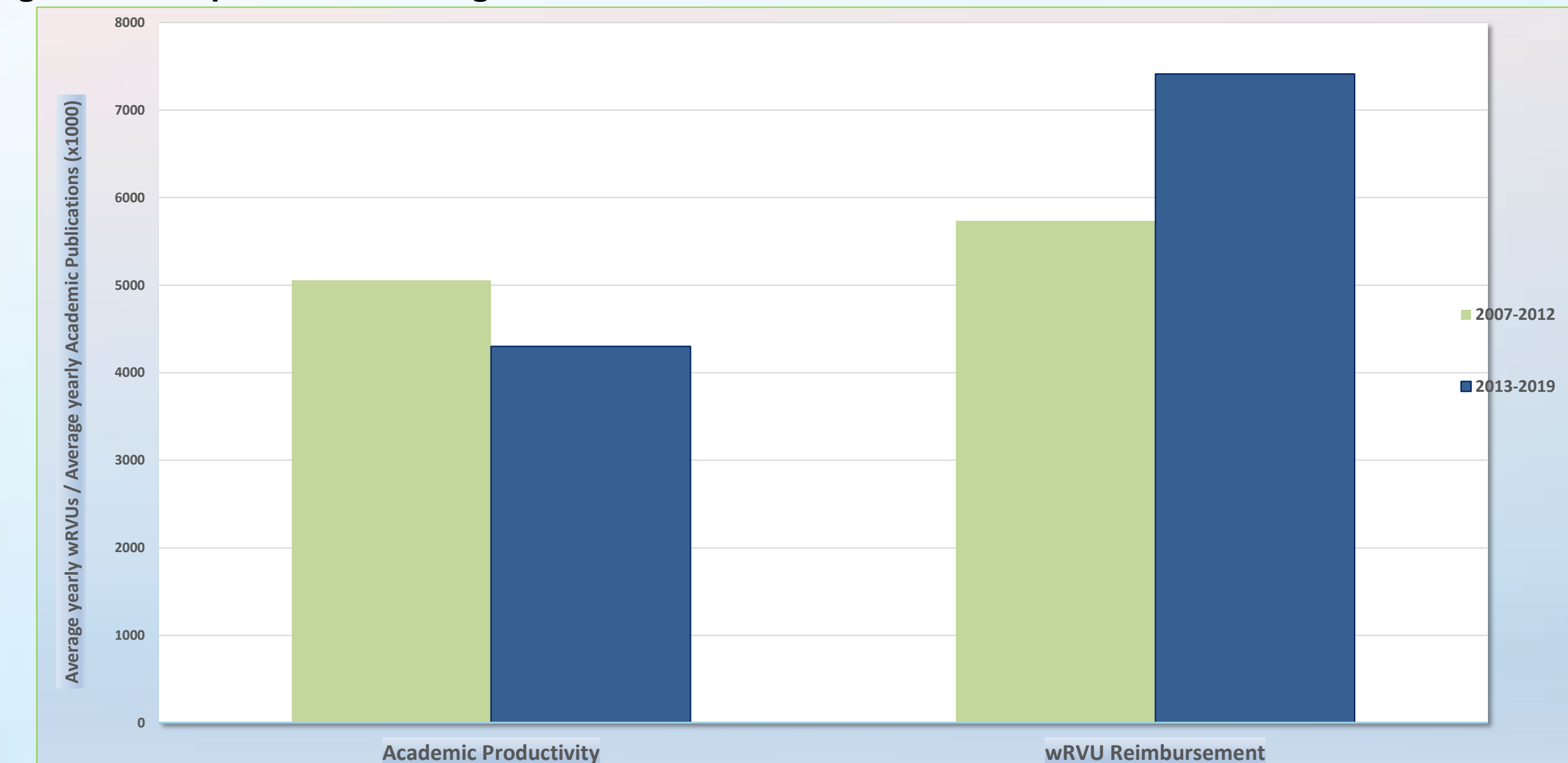


Figure 3: Comparison of Two Trauma Surgeons in their Most Productive Years Based on RVU Generation Vs. Academic Publications

Trauma Surgeon	wRVU Generation	Academic Publications
A ¹	6529.32	22
B ²	12323.31	1

1= Trauma surgeon A in their most productive year based on number of academic publications (2011)
2= Trauma surgeon B in their most productive year based on wRVU generation (2009)

Conclusion

- The traditional wRVU model **undervalues** and **jeopardizes** academic activities that are not compensated.
- There exists little to no direct correlation of wRVU units generated and academic publications for trauma surgeons at LVHN for fiscal years 2007-2019 (Figure 1)
- Approximately midway through the study timeline from fiscal years pre 2013 (2007-2012) to post 2013 (2013-2019), academic productivity showed a decrease, while wRVU reimbursement showed an increase (Figure 2)
 - A negative relationship exists
- Trauma surgeon A in their most productive year based on number of academic publications generated 52.98% of the RVUs that trauma surgeon B generated in their most productive year of RVU generation (Figure 3)
 - A year of maximum academic productivity led to generation of nearly half the RVU generation that a year of maximum RVU production had
- Trauma surgeon B had their most productive year in RVU generation, yet produced only 1 academic publication, only 4.55% of trauma surgeon A (Figure 3)
 - Direct comparison shows a high RVU generation may leave a surgeon less time for academic pursuits

Future Direction

- Proposal of an academic (aRVU) model may make up for discrepancies found between wRVU generations and academic pursuits at LVHN
- Investigate other variables surrounding wRVU generation
 - average time spent to generate wRVUs and how this affects academic endeavors
- Investigate correlation with other academic endeavors
 - Resident/student teaching
 - Administrative services

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