Paper Title

Paper Subtitle

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Abstract

[Enter text]

Keywords:

**Introduction**

[Enter text]

**Literature Review**

[Enter text]

**Research Questions**

[Enter text]

**Data and Methods**

**Data Sources**

This study uses patent data with constructed variables obtained from the National Bureau of Economic Research (NBER) website. The data file included all utility patents granted from January 1963 to December 1999 listed in the Technology Assessment and Forecast (TAF) database of the United States Patent and Trademark Office (USPTO). The data file contained data on 2,923,922 patents across 23 variables. Table 1 and Table 2 provide information about the variables.

Table 1

Original USPTO Patent Data Variables

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Variable Type | Extended Name | Description |
| PATENT | Numeric | Patent Number |  |
| GYEAR | Numeric | Grant Year |  |
| GDATE | Numeric | Grant Date |  |
| APPYEAR | Numeric | Application Year |  |
| COUNTRY | Character | Country of First Inventor |  |
| POSTATE | Character | State of First Inventor (US) |  |
| ASSIGNEE | Numeric | Assignee Identifier |  |
| ASSCODE | Numeric | Assignee Code |  |
| CLAIMS | Numeric | Number of Claims |  |
| NCLASS | Numeric | Main Patent Class |  |

Table 2

Constructed Patent Data Variables

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Variable Type | Extended Name | Description |
| CAT | Numeric | Technological Category |  |
| SUBCAT | Numeric | Technological Sub-category |  |
| CMADE | Numeric | Number of Citations Made |  |
| CRECEIVE | Numeric | No. of Citations Received |  |
| RATIOCIT | Numeric | Percent of Citations Made to Patents |  |
| GENERAL | Numeric | Measure of Generality |  |
| ORIGINAL | Numeric | Measure of Originality |  |
| FWDAPLAG | Numeric | Mean Forward Citation Lag |  |
| BCKGTLAG | Numeric | Mean Backward Citation Lag |  |
| SELFCTUB | Numeric | Share of Self-Citations Made – Upper Bound |  |
| SELFCTLB | Numeric | Share of Self-Citations Made – Lower Bound |  |
| SECUPBD | Numeric | Share of Self-Citations Received – Upper Bound |  |
| SECDLWBD | Numeric | Share of Self-Citations Received – Lower Bound |  |

**Data Modifications**

[Enter text]

**Results**

[Enter text]

**Discussion**

**Findings and Analysis**

[Enter text]

**Policy Implications**

[Enter text]

**Limitations of the Analysis**

[Enter text]

**Possible Extensions**

[Enter text]

**Conclusion**

[Enter text]

References

National Bureau of Economic Research. (2018). Patent data, including constructed variables [data file]. Retrieved from http://www.nber.org/patents/

Hall, B. H., Jaffe, A. B. and Trajtenberg, M. (2001). "The NBER Patent Citation Data File: Lessons, Insights and Methodological Tools." *NBER Working Paper 8498*. Retrieved from http://www.nber.org/patents/