Appendix E: Description of the Patent Term Adjustment Data Release

E.1 Data Files Included in this Release

This data release consists of two data files. The first, called **pat_term_adj**, provides all of the information that a user would be able to glean from the "Patent Term Adjustment History" section of the "Patent Term Adjustments" tab. The information includes the application number of the subject application, the transaction history of the subject application complete with transaction dates, the length of any delays for which the PTO was responsible, and the lengths of any delays for which the applicant was responsible. The data file includes 118,120,844 observations on 2,636,535 unique patent applications. See Table E-1 for a list of the variables included in the PAT_TERM_ADJ data set.

As an example, Figure E-1 shows the "Patent Term Adjustment" tab for application number **12/536,965** which was filed with the PTO in August of 2009. The top portion of the tab includes calculations for the total patent term adjustment. We mimic many of these calculations and release them in our second data file, called **pta_summary**. The bottom portion of the tab includes the history of delays in the prosecution of the application. These delays are used in the calculations in the top portion of the tab. Given the structure of the tab, there will usually be multiple entries in the data set for each application. One can interpret the data presented Figure E-1 as follows.

- It appears that the examiner was late in mailing out the restriction requirement on July 29, 2011, which caused 296 days of delay for which the PTO was responsible.
- Later in the prosecution there was a delay of 55 days on the part of the applicant regarding the completion of drawings.

To determine the patent term adjustment in the top portion of the tab, the delays for which the applicant is responsible are subtracted from the delays for which the PTO is responsible. Thus, the total patent term is adjusted (or extended) by 241 days (the 296 days of PTO delay minus the 55 days of applicant delay).

E.2 Variables Included in pat_term_adj

The variables included in the **pat_term_adj** data file are meant to allow the user to mimic the "Patent Term Adjustment History" panel. The variable *application_number* identifies the subject application and can be used to link information from this data file to the other data files included in the PatEx Research Dataset release.

The variable *pta_sequence_number* corresponds to the values in the "Number" column in the "Patent Term Adjustment History" panel. The variable *pta_event_date* provides the date on which each transaction occurred and corresponds to the values from the "Date" column in the "Patent Term Adjustment History" panel. This variable is formatted as a numeric variable which is set equal to the difference between the filing date and the first day of January 1960. For instance, if an application was received on 10 January 1960, then the date variable would be equal to 9. For dates prior to 1 January 1960, the date variable takes on negative values. In the Stata version of the data set, the %td display format is embedded, so that the dates display with the following format: ddmmmyyyy. For example, when *pta_event_date* is equal to 12,500, it displays in Stata as "23mar1994."

The variable *pta_event_code* corresponds to the "Contents Description" column. The descriptions of the event can be obtained by linking to the **event_codes** file, which provides a mapping of event codes to event descriptions.[73]

The next two variables describe any delays in the patent prosecution process related to each event. The first variable, *delay_duration*, indicates the length of any delay that occurred in getting to the event. A value of greater than zero indicates that there was a delay that was caused by either the PTO or the applicant. The next variable, *responsible_party*, indicates whether the PTO (*responsible_party*="PTO") or the applicant (*responsible_party*="APPL") was responsible for the delay. If the *delay_duration* variable has a positive value, but the *responsible_party* variable is blank, it typically signifies a portion of one type of a PTO delay that overlaps with another type of PTO delay. There are three basic types of PTO delays. [74]

- Type "A" Delays: These are the most common delays and typically include delays in the mailing of office actions. More technically they refer to PTO delays pursuant to 35 U.S.C. § 154(b)(1)(A)(i)-(iv) and the implementing regulations 37 CFR 1.702(a) & 37 CFR 1.703(a).
- Type "B" Delays: These delays are caused by the failure of a patent to issue within three years of the filing date of the application in the United States under section 111(a) or, in the case of an international application, the date of national stage entry under section 371.[75]
- Type "C" Delays: These delays are typically caused by interference proceedings, secrecy orders, and successful appeals before the PTAB (or BPAI). For instance,

[73] The EVENT_CODES file is described in more detail in Appendix B.
[74] See http://www.uspto.gov/patents-application-process/checking-application-status/pair-announcements/explanation-patent-term for more information. These types of delays are also described in more detail in Section 2.2.5 of the main report.
[75] Type "B" delays are typically captured under event code "PTA36M".

if an appeal before the PTAB takes two years and is successful, those two years of delay are awarded to the applicant as a patent term adjustment.

The portion of a Type-"A" delay that overlaps with either a Type-"B" or Type-"C" delay is not counted when calculating the patent term adjustment. That's why the *responsible_party* variable is left blank in this case. This assists in the calculation of the patent term adjustment for any application. The analyst simply needs to sum up the delays where *responsible_party* is equal to "PTO" and subtract the delays where *responsible_party* is equal to "APPL." In cases where this calculation yields a negative value, the patent term adjustment would be zero. The **pta_summary** data file includes the results of these calculations for each unique application in the **pat_term_adj** data file.

The final variable, *start_pta_sequence_number*, indicates which prior event generated a due date for the event that was eventually delayed. For instance, patent term adjustment will typically be triggered if a first action is not completed within 14 months of an application filing. Thus, if the first action is delayed, the *start_pta_sequence_number* variable will typically indicate that the prior event that generated the due date for the first action was the initial application filing. This is illustrated in Figure E-1, where the first action (the restriction requirement) was delayed. The sequence number in the "Start" column (0.5) is the original sequence number from the "Number" column for the application filing date.

E.3 Variables in pta_summary

There are a total of 2,636,535 applications represented in the **pta_summary** data file. The variable *application_number* can be used to link the observations in this data file to other data files included in the PatEx release. The other variables provide information that can be found in the right column of the top panel in Figure E-1. The information includes the total non-overlapping USPTO-caused delay and applicant-caused delay that occurred during the examination of the application in question. It also includes any final patent term adjustment that was added or subtracted by USPTO prior to patent issue.[76] Finally, the variable *patent_term_adjustment* provides the final adjustment to the term of the resulting patent.[77] It is calculated using the following formula:

[76] Sometimes these manual adjustments are made after patent issue in response to a petition from the patent holder.

[77] The user should note that in some extreme cases, very large patent term adjustments are calculated. In most of these cases, the mis-calculation is due to a data error. For examples, go to the online Public PAIR portal and search for the following application numbers: 11/324,864; 12/130,335; 12/720,816; or 12/593,880. In each case, a problem with the transaction date has triggered a very large negative value in the applicant delay column. The odd result can be found in the top panel of the "Patent Term Adjustments" tab in each case. One possible fix for this problem would be to re-calculate the *applicant_delay* variable using only positive values of *delay_duration* where *responsible_party* is equal to "APPL."

(F1) *patent_term_adjustment = nonoverlap_pto_delay + pto_manual_adjustment – applicant_delay*

The variable *patent_term_adjustment* is set equal to zero if either of the following is true.

- The result of equation (F1) is less than zero.
- The application in question was filed prior to June 8, 1995.[78]

[78] Patent term adjustments are not applied to applications filed prior to June 8, 1995, as resulting patents have a term of 17 years from issue rather than of 20 years from filing.

Table E-1: List of Variables Included in pat_term_adj

Variable Name	Description	Type	Formatting
application_number	Application Number	str14	%-14s
pta_sequence_number	The sequence number for the prosecution event	float	%9.0g
pta_event_date	The date of the prosecution event	float	%td
pta_event_code	Code identifying the type of prosecution event	str8	%-8s
delay_duration	Length (in days) of the delay in prosecution	int	%8.0f
responsible_party	The party (PTO or applicant) responsible for the delay in prosecution	str4	%-4s
start_pta_sequence_number	Identifier for the event that triggered the due date for delayed event	float	%9.0g

Table E-2: List of Variables Included in pta_summary

Variable Name	Description	Type	Formatting
application_number	Application Number	str14	%-14s
nonoverlap_pto_delay	Total PTO caused delays of types A, B, or C that do not overlap	double	%9.0g
pto_manual_adjustment	Adjustments to patent term made prior to issue	double	%9.0g
applicant_delay	Total applicant caused delay	double	%9.0g
patent_term_adjustment	Total patent term adjustment	float	%9.0g

Figure E-1: "Patent Term Adjustments" Tab for Application Number 12/536,965

Patent Application Information Retrieval

Order Certified Application As Filed | Order Certified File Wrapper | View Order List

12/536,965 PROCESS FOR PRODUCING A RAIL AND POST FENCE SYSTEM BRI321-00/06255A

Select New Case | Application Data | Transaction History | Image File Wrapper | Patent Term Adjustments | Continuity Data | Fees | Published Documents | Address & Attorney/Agent | Supplemental Content | Assignments | Display References

Patent Term Adjustment

Filing or 371(c) Date:	08-06-2009	Overlapping Days Between {A and B} or {A and C}:	0
Issue Date of Patent:	11-15-2011	Non-Overlapping USPTO Delays:	296
A Delays:	296	PTO Manual Adjustments:	0
B Delays:	0	Applicant Delays:	55
C Delays:	0	Total PTA Adjustments:	241

Patent Term Adjustment History — Explanation Of Calculations

Number	Date	Contents Description	PTO(Days)	APPL(Days)	Start
49.5	11-15-2011	PTA 36 Months	0		0.5
49	11-15-2011	Patent Issue Date Used in PTA Calculation			0
48	10-17-2011	Export to Final Data Capture			0
47	10-14-2011	Dispatch to FDC			0
46	10-14-2011	Application Is Considered Ready for Issue			0
45	09-22-2011	Workflow - Drawings Finished		55	0
44	09-22-2011	Issue Fee Payment Verified			0
43	09-22-2011	Finished Initial Data Capture			0
42	09-22-2011	Issue Fee Payment Received			0
38	09-13-2011	Mail Notice of Allowance			0
37	09-09-2011	Office Action Review			0
36	09-09-2011	Office Action Review			0
35	09-09-2011	Issue Revision Completed			0
34	09-09-2011	Document Verification			0
33	09-09-2011	Notice of Allowance Data Verification Completed			0
32	09-09-2011	Case Docketed to Examiner in GAU			0
31	08-26-2011	Examiner's Amendment Communication			0
30	08-26-2011	Allowability Notice			0
25	03-22-2010	Information Disclosure Statement considered			0
24	01-04-2010	Information Disclosure Statement considered			0
23	08-23-2011	Case Docketed to Examiner in GAU			0
22	08-18-2011	Date Forwarded to Examiner			0
21	08-09-2011	Response to Election / Restriction Filed			0
20	07-29-2011	Electronic Review			0
19	07-29-2011	Email Notification			0
18	07-29-2011	Mail Restriction Requirement	296		0.5
17	07-27-2011	Office Action Review			0
16	07-25-2011	Restriction/Election Requirement			0
12	03-22-2010	Electronic Information Disclosure Statement			0
11	03-30-2010	Case Docketed to Examiner in GAU			0
10	03-22-2010	Information Disclosure Statement (IDS) Filed			0
9	01-04-2010	Electronic Information Disclosure Statement			0
8	01-04-2010	Information Disclosure Statement (IDS) Filed			0
7	09-01-2009	Application Dispatched from OIPE			0
6	08-21-2009	Sent to Classification Contractor			0
5	08-21-2009	Filing Receipt			0
4	08-07-2009	Cleared by OIPE CSR			0
3	08-06-2009	IFW Scan & PACR Auto Security Review			0
2	08-06-2009	PGPubs nonPub Request			0
1	08-06-2009	Initial Exam Team nn			0
0.5	08-06-2009	Filing date			0