

Effects of the federal mental health insurance parity law on service use and spending among children with Autism Spectrum Disorders

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Outline for talk

- Background on Domenici-Wellstone Mental Health Parity and Addiction Equity Act of 2008 (MHPAE) and autism
- Research questions
- Data and methods
- Results
- Conclusions

Primary research question: How did the federal parity law affect mental health service use and spending by children with autism spectrum disorders?



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Background on Federal Parity

- Historically, more stringent limits under private insurance for mental health benefits compared with other medical benefits
- In 2008 the U.S. Congress enacted the Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act
- Required insurers equalize private insurance coverage for mental health (and SUD) services with coverage for general medical services
 - Includes all financial requirements and treatment limits
 - Effective 2010



Autism

- Autism Spectrum Disorders (ASD) are a group of neurobehavioral syndromes defined by repetitive/stereotypic behaviors and disruption in social and language abilities
- Individuals with ASD require care throughout their lifetime
 - Treatment includes physical therapy, occupational therapy, speech language therapy, medication
 - Many individuals with ASD also have co-occurring mental health disorders
- Cost of care for individuals with ASD high; specific treatments (e.g., ABA) not always covered by private insurers due to concerns about evidence of effectiveness
- Private health plans have historically covered relatively few services for individuals with ASD
- Interest in whether recent policy initiatives such as federal parity law has increased use of services



Prior Literature

- Studies consistently find that parity policies do not significantly increase mental health service use or spending
- Parity policies have been found to confer important financial protections for families
- No published research used claims data to look at the impact of parity on autism services



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Effects of parity on children with autism

- Autism of particular interest when looking at federal parity law
 - ASD services often not covered under private insurers mental health benefit
 - The federal law allows insurers to decide what conditions are covered under mental health parity – not clear how insurers will handle autism services



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Primary research question: How did the federal parity law affect service use and spending for children with autism spectrum disorders under private insurance?

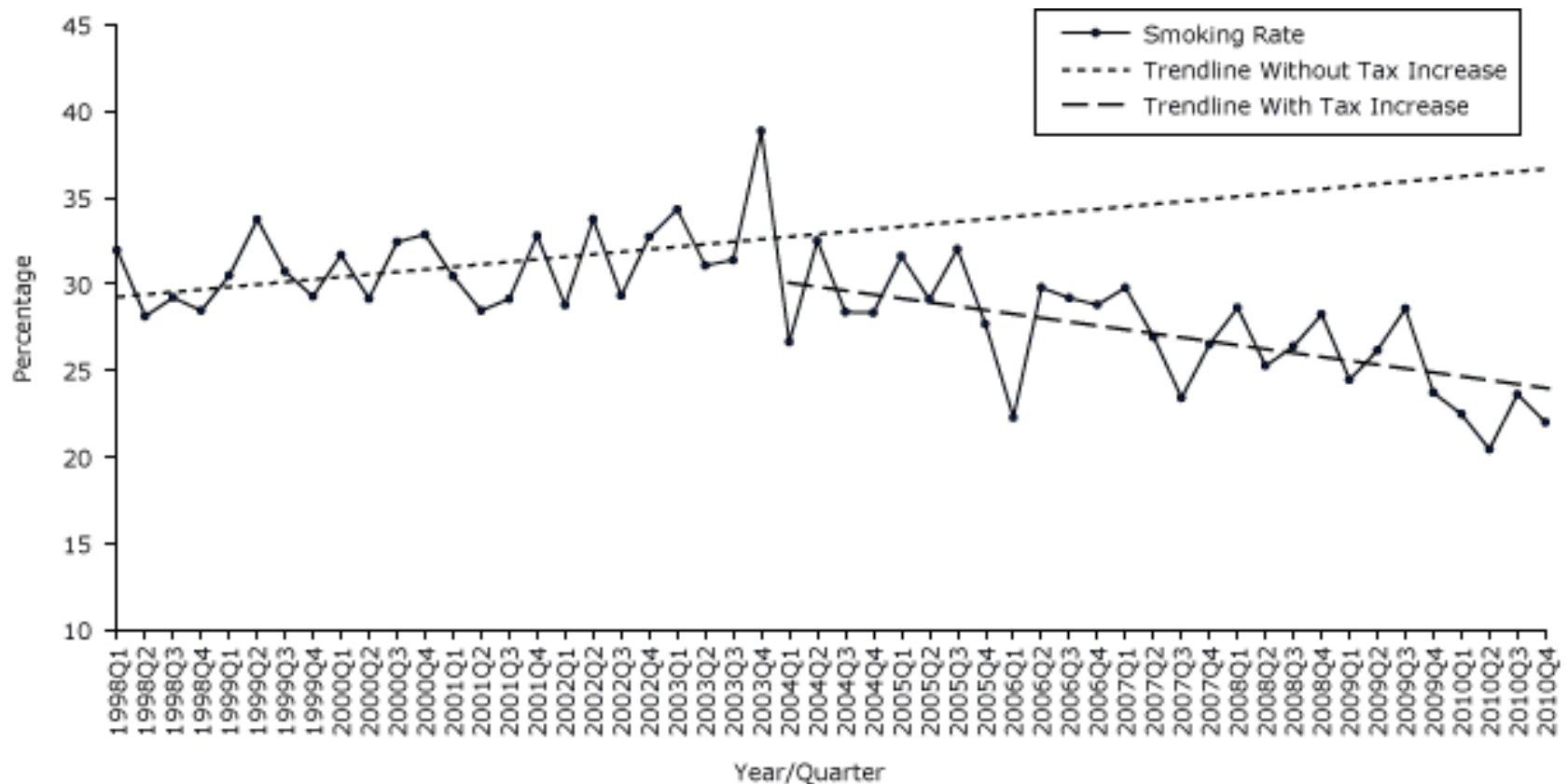


Overall design

- Interrupted time series design
- Compare:
 - Trends in service use post-parity with what we would have expected those trends to have been, given the pre-parity trends
- Data: Marketscan claims data



Example of an ITS design



From http://www.cdc.gov/pcd/issues/2013/images/12_0268_01.gif



Data

- Marketscan claims data
 - 2007-2012
 - Self-insured sample covering 17 million enrollees per year
- Population:
 - All children ages 0-21 with at least one primary autism diagnosis (299.xx) who were continuously enrolled for at least 1 calendar year. (Note: Did not require continuous enrollment across multiple years)
 - N=29,289
 - Approximately 0.3% of all children ages 0-21
- Claims:
 - All health insurance claims for each child



Outcomes of interest

- Service use
 - Any mental health service use, and # of outpatient mental health visits
 - Any speech/language therapy, and # of speech/language therapy visits
 - Any occupational or physical therapy (OT/PT), and # of OT/PT visits
 - Any psychotropic drug use
- Spending
 - Total health care spending (medical + behavioral + functional + pharmaceutical)
 - Total mental health spending
 - Total speech/language therapy spending
 - Total OT/PT spending
- Out-of-pocket (OOP) spending (paid for through insurance)
 - OOP mental health spending
 - OOP speech/language therapy spending
 - OOP OT/PT spending



Statistical analysis

- Interrupted time series estimation
 - $Y \sim \text{Parity} + \text{Month} + \text{Parity} * \text{Month} + [\text{Calendar month indicators}]$
- 72 monthly observations
 - 36 months pre- and 36 months post-parity
 - i.e., models run on aggregated data at the month level
- Models account for correlation of observations over time
 - Yule-Walker estimation with first order autocorrelation
- Model comparison to select best model (AIC)



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What does the sample look like?

	2007	2008	2009	2010	2011	2012
Prevalence	0.30	0.34	0.38	0.42	0.45	0.49
Female (%)	17.4	17.8	17.9	18.2	18.7	18.7
Age 0-7 (%)	39.5	40.3	38.9	36.9	36.0	34.5
Age 8-11 (%)	27.6	27.2	27.9	29.4	29.7	30.7
Age 12-18 (%)	32.9	32.5	33.1	33.6	34.4	34.9
Any co-morbid diagnosis (%)	65.5	65.8	66.2	67.6	67.7	68.8
Any mental health service use (%)	65.5	65.8	66.2	68.0	67.8	68.8
Any speech/language therapy (%)	7.5	7.9	8.3	8.8	10.1	11.2
Any occupational/physical therapy (%)	5.0	4.8	4.9	4.9	5.6	6.3
Any psychotropic drug use (%)	41.4	41.1	41.8	41.9	41.7	41.8
Total spending per year (mean \$)	7,958	8,282	8,953	9,530	10,329	11,156
Average # of OP visits per year	11.1	11.1	11.6	13.4	14.8	16.7



Results

- For most use outcomes, saw an increase in the rate of growth over time as a result of federal parity
 - No effects on the intercept
- Similar trends in effects for spending outcomes
 - Likely a result of the increased use
- But no effect on out of pocket spending
 - So kids getting more services without having to pay more
 - (Except for OT/PT)

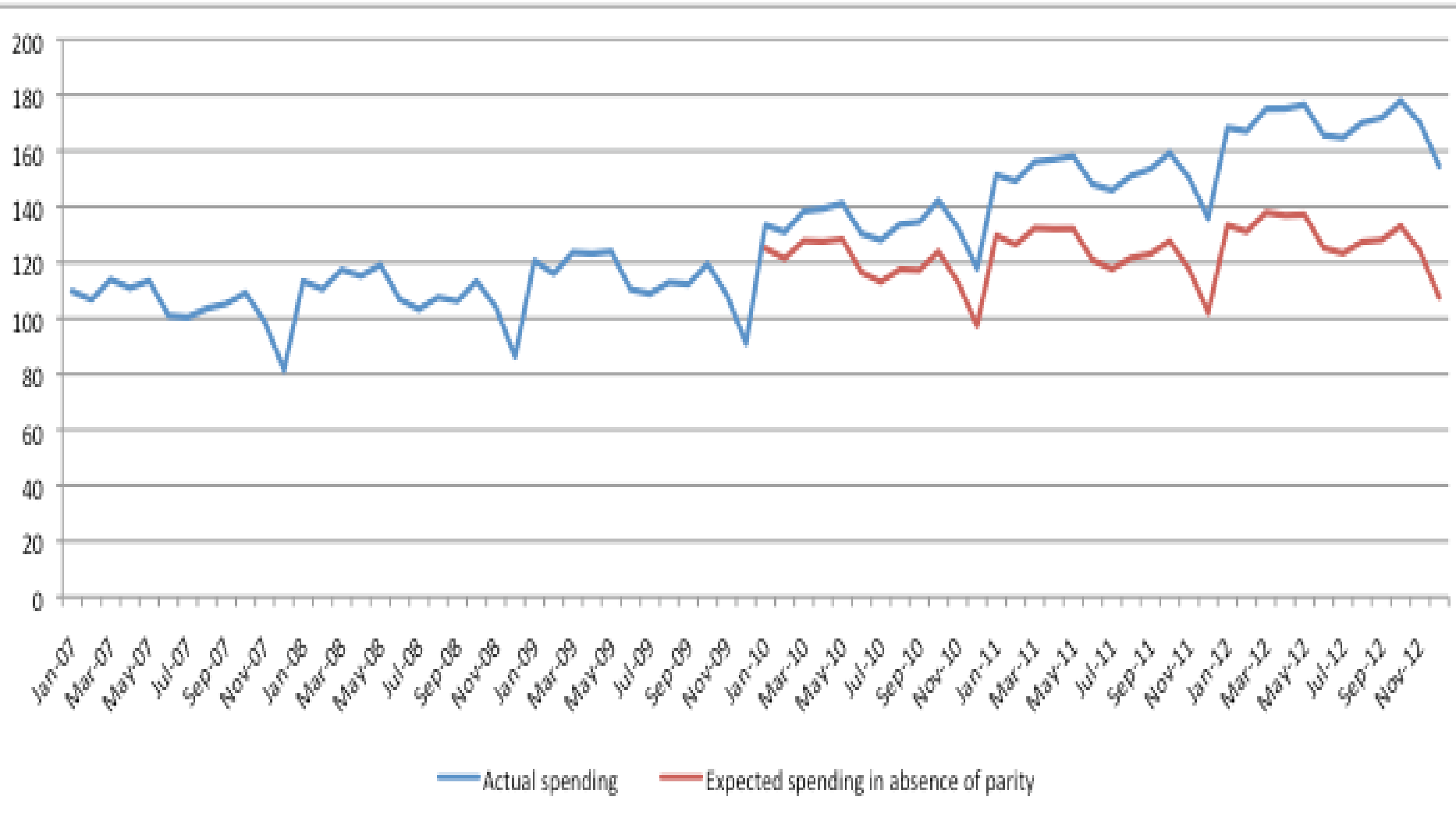


Detailed Results

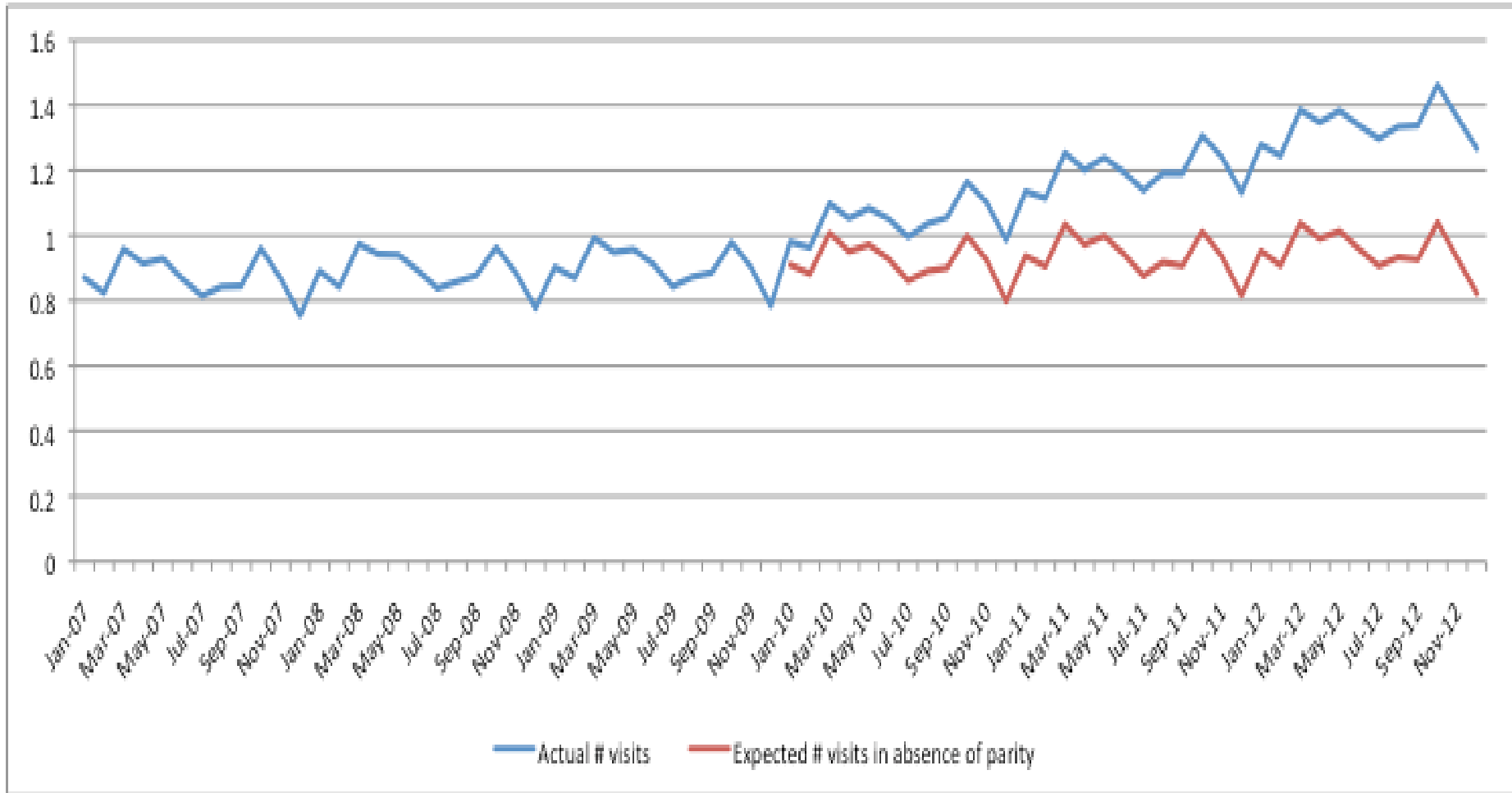
	Parity	Parity*Month
Prob. of any OP mental health	0.005 (p=0.08)	0.0004 (p<0.01)
# of OP mental health visits	0.06 (p=0.02)	0.01 (p<0.01)
Prob. of any speech therapy	0.002 (p=0.87)	0.0005 (p<0.01)
# of speech therapy visits	0.062 (p=0.20)	0.012 (p<0.01)
Total spending	-3.13 (p=0.82)	2.12 (p<0.01)
Total speech therapy spending	-0.43 (p=0.56)	0.26 (p<0.01)
Total OOP spending	3.93 (p=0.45)	-0.33 (p=0.19)



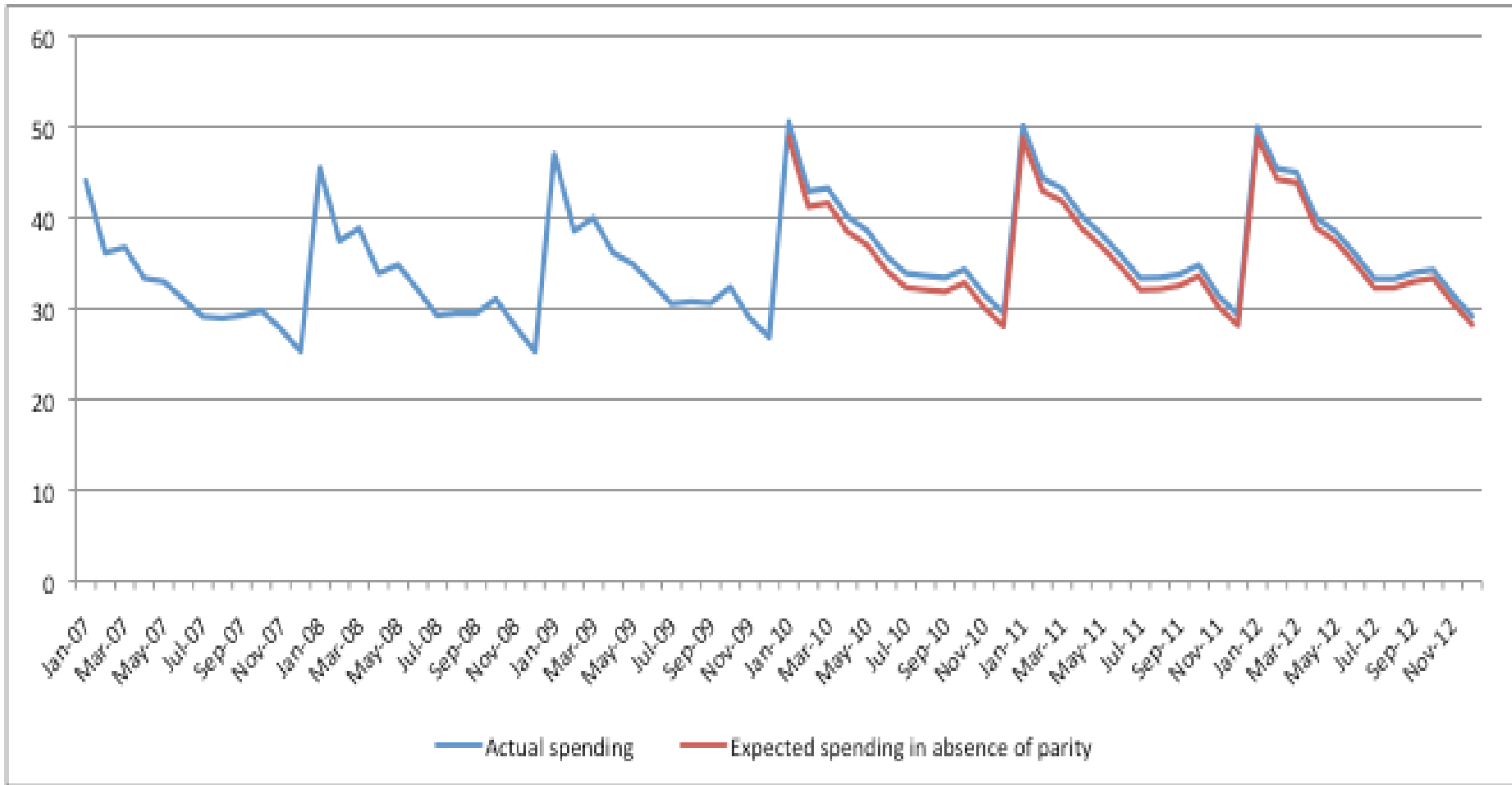
\$174 increase in mental health spending in one year post-parity



Increase of 1.5 OP mental health visits in first year post-parity



No increase in OOP spending for mental health



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Strengths and Limitations

Strengths:

- Large sample of children with ASD
- Full medical and behavioral claims on each child

Limitations:

- Limited clinical data
- No comparison group



Conclusions

- Federal parity seems to have increased the services children with ASD receive
 - But effects relatively small in magnitude
- Concern that federal parity would greatly increase ASD-related spending unfounded
- OOP spending results indicate the parity law is conferring some additional financial protections for families of children with ASD
- Interesting to contrast parity effects for children with ASD to overall parity effects
- Ongoing litigation related to federal parity and ASD



Thank you!

comments:

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