

One Year After the Hawaii Smokefree Law: Tourism and Hospitality Economic Indicators Appear Unaffected

Report Prepared for the Hawaii State
Department of Health



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January 2008

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Executive Summary

The Hawaii Smokefree Law took effect November 16, 2006. Based on this review of several economic indicators of the tourism and hospitality economy in Hawaii, there is no evidence the smokefree law caused adverse economic outcomes to these business sectors.

Leading up to its passage, proponents argued that workers' health was at risk due to secondhand smoke exposure, while opponents of the law claimed that Hawaii's unique situation as a tourist destination placed its tourism industry at risk of economic losses. The purpose of this report is to provide an initial assessment by evaluating multiple objective data sources to determine if there is evidence that Hawaii's tourism and hospitality business sectors suffered adverse economic consequences in the year after the smokefree law took effect.

The methods for evaluating the potential economic impact of the Hawaii Smokefree Law Data follow existing practices for other similar studies conducted in other cities and states. Data on total visitor spending as well as spending from Japanese visitors were obtained from Hawaii's Department of Business, Economic Development & Tourism, employment data were obtained from Hawaii Department of Labor & Industrial Relations and Hawaii Department of Taxation.

The results show that there is no evidence to suggest that the Hawaii Smokefree Law has harmed the hospitality or tourism industries as a whole. Specific highlights include:

- There are 212 more people working in the Hawaii Accommodation employment sector after the smokefree law compared to the year before the law, and there are 1,591 more jobs in the Food Services and Drinking Places employment sector during the same time period.
- Overall total monthly visitor spending in Hawaii was comparable before and after the law (\$1.038 billion before the law compared with \$1.018 billion after the law, adjusted for inflation to 2007 dollars).
- Monthly spending from visitors from Japan was also comparable before and after the law (\$183 million before the law compared with \$168 million after the law, adjusted for inflation to 2007 dollars).

The initial economic data do not suggest that the Hawaii Smokefree Law has harmed the tourism or hospitality industries. Rather, economic indicators after the law are within the range of variability, or even higher, to those indicators experienced before the law.

Acknowledgement

Financial support for this report was provided by the Hawaii State Department of Health Tobacco Prevention & Education Program. Questions concerning this report should be directed to Andrew Hyland at andrew.hyland@roswellpark.org.

About The Authors

Andrew Hyland, PhD is an Associate Member and Cheryl Higbee, MPH is a Research Associate in the Department of Health Behavior at Roswell Park Cancer Institute in Buffalo, New York. Dr. Hyland has studied the economic impacts of smokefree laws for 12 years, including comprehensive assessments of smokefree regulations in New York City, New York State, Australia, and Scotland. Dr. Hyland has consulted with the US Centers for Disease Control and Prevention, the US National Cancer Institute, and the International Agency for Research on Cancer on issues pertaining to smokefree policies. He has authored 20 peer reviewed scientific papers on smokefree policies and leads the Roswell Park Cancer Institute Secondhand Smoke Research Program, which was awarded the 2007 Global Smokefree Partnership for Outstanding, Sustained Contribution to the Evidence Base For Effective Smokefree Policies.

Background

On November 16, 2006, Hawaii became the 14th state to implement a comprehensive statewide law prohibiting smoking in all enclosed or partially enclosed places of employment, including bars and restaurants¹. This follows a series of county-wide laws that were implemented earlier in the 2000s that covered many workplaces but exempted others, including bars and taverns. More than 85% of all Hawaii voters were in favor of this law².

The Hawaii Smokefree Law requires that all indoor workplaces, including indoor and outdoor areas of bars and restaurants, provide a completely smokefree environment. In addition, smoking is prohibited in all airports, places open to the public, and outdoor areas within 20 feet of doorways, windows, or ventilation intakes. The statewide law sets a minimum set of rules of which individual businesses or municipalities can implement more stringent rules.

While most voters supported the smokefree law, leading up to the passage of the law there was considerable debate. Proponents of the law cited the dangers of secondhand smoke, which was detailed in the 2006 Surgeon General's Report on the issue. Proponents argued that workers' health was at risk and that other states and even countries had successfully implemented smokefree workplace regulations. Opponents of the law claimed that Hawaii's unique situation as a tourist destination, particularly for those from Asian countries where smoking rates are high, placed its tourism industry at risk of economic losses.

The purpose of smokefree legislation is to reduce employees' exposure to a known toxin, and studies show that comprehensive legislation that provides for smokefree air for all workers is the most effective means to protect employees from secondhand smoke³. One of the potential side effects of smokefree legislation; however, is that they cause a loss of tax revenue and jobs in the hospitality industry. Previous studies have consistently shown smokefree regulations do not adversely impact economic indicators⁴; however just two studies have assessed their potential impact on tourism^{5,6}. Neither of these studies evaluated a state that relies heavily on tourism, such as Hawaii where it

¹. Hawaii's Smokefree Law. Hawaii State Department of Health. <http://www.hawaii.gov/health/healthy-lifestyles/tobacco/Smoke-Free-Law.htm>. Accessed 12/31/2007.

². Coalition for Tobacco Free Hawaii. Healthy Air and Workplaces Act (HAWA). Frequently asked questions. Accessed 1/3/08 from http://www.tobaccofreehawaii.org/version3/HAWA_FAQ.html.

³. The health consequences of involuntary exposure to tobacco smoke: a report of the Surgeon General. – [Atlanta, Ga.] : U.S. Dept. of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, [2006]

⁴. Scollo M, Lal A, Hyland A, Glantz S. Review of the quality of studies on the economic effects of smoke-free policies on the hospitality industry. *Tob Control*. 2003 Mar;12(1):13-20.

⁵. Hyland A, Cummings KM, E Nauenberg. Analysis of taxable sales receipts from New York City: Has the New York City Smoke-free Air Act affected the city's restaurant business? *Journal of Public Health Management and Practice*, 1999, 5(1), 14-21.

⁶. Glantz SA, Charlesworth A. Tourism and hotel revenues before and after passage of smoke-free restaurant ordinances. *JAMA*. 1999 May 26;281(20):1911-8.

accounts for as much as a third of all economic activity in the state⁷, one quarter of employment, and nearly one fifth of the gross state product⁸.

It has now been one year since the Hawaii Smokefree Law took effect. This report provides an initial descriptive assessment of the available data to determine if there is evidence to suggest that the smokefree law resulted in economic losses to the hospitality and tourism industries in Hawaii.

Data Sources, Measures, and Analysis

Data Sources and Measures: Descriptive data from several data sources from the Hawaii Department of Business, Economic Development, and Tourism that provide tourism specific economic indicators for all of Hawaii are used in this report. These measures are summarized in Table 1.

The tourism specific indicators include: 1) total monthly number of visitors to Hawaii; 2) the average duration of each visit; 3) the average daily amount spent per visitor; and 4) the product of the former three measures to yield a total monthly spending for all visitors to Hawaii. These data are reported overall as well as specifically for Japanese visitors. In addition, the number of employees in the 'accommodation' and 'food services and drinking places' industries was tracked by month from January 2003 to November 2007.

Analysis Approach: All analyses in this report are descriptive in nature because of the relatively few available post-law data points. The tourism specific outcomes assessed are presented in three ways for all visitors to Hawaii as well as for visitors from Japan separately: 1) monthly levels from January 2003 to November 2007; 2) year-over-year percent change by month; 3) monthly levels in the months before the law took effect compared to the levels in the same month after the law took effect. The pre-law period was defined as December 2005 to November 2006 and the post-law period was defined as December 2006 to November 2007. (Because the smokefree law took effect mid-way through November 2006, this data point could be handled in different ways. After determining that the results remained generally unchanged whether it was included before or after the law or omitted altogether, we elected to include it before the law so that 1 full year's worth of data would be available for analysis.) The first approach presents the raw data over time, while the second approach controls for seasonal effects while still giving a broad overview of trends. The third approach focuses on the immediate pre- and post- law period to better isolate potential impacts that may be attributable to the smokefree law and not to other factors. We feel the third approach is the most appropriate way to determine if the smokefree law harmed the hospitality economy in Hawaii. For the latter outcome measure we also display the findings in a summary table that includes the 95% confidence intervals around the mean levels to give the reader a sense of the variability around the average values. Fiscal measures

⁷ Latzko DA. Tourism and Fluctuations in the Hawaiian Economy. Pennsylvania State University, Business and Economics Division. 11-Nov-2004.

⁸ Honolulu Economic Development: Tourism. Accessed 12/10/07 from <http://www.enterprisehonolulu.com/honolulu/honolulu-economic-development/Tourism.cfm>.

are adjusted for inflation to 2007 dollars based on the consumer price index for Hawaii⁹. Therefore, the real dollar amounts given in this report may differ from the nominal dollar amounts in the publicly available raw data.

Results

Tourism Specific Economic Indicators

Data on total visitor spending by month in Hawaii for all visitors and just for visitors from Japan indicates comparable levels of visitation, duration of stay, and total dollars spent while visiting before and after the law. In addition, employment in the Food Services and Drinking Places and Accommodation business sectors has increased in each month compared to the same month in the prior year throughout the study period. Specific detail on each of these measures is presented below.

Number of Visitors to Hawaii, Overall and From Japan

OVERALL

The total number of visitors to Hawaii is typically highest in June, July and August. There was growth in the number of visitors to Hawaii in 2004-2005, which leveled off in early 2006 and through 2007. The average number of monthly visitors to Hawaii was comparable in the months after the law compared to the same month in the year before the law took effect (average before the law = 616,895 vs. average after the law = 615,106). (See Figures 1-3).

JAPAN

Just under 20% of all visitors to Hawaii are from Japan. The number of Japanese visitors decreased substantially in the summer of 2003 but rebounded by 2004. Since late 2005, however, there has been a consistent decline in the number of visitors from Japan. The average number of monthly visitors from Japan in the 12 months after the smokefree law was 110,369 compared to 116,200 visitors in the same months in the year before the smokefree law. The rate of decline in the number of visitors from Japan does not appear to have accelerated after the smokefree law, and in fact, there may be some moderation of the slowdown after the smokefree law. (See Figure 4-6).

Average Length of Stay for Visitors to Hawaii, Overall and From Japan

OVERALL

Overall, visits to Hawaii tend to be longer in the winter months of December and January and durations of stay have remained fairly constant since 2005. The average duration of stay was the same, 9.1 days, in the months after the smokefree law compared to the same months in the year before the law. (See Figures 7-9)

JAPAN

Visitors from Japan tend to have shorter stays than the average visitor to Hawaii. The average stay duration for Japanese visitors was comparable in the months after the

⁹. US Dept. of Labor, Bureau of Labor Statistics. Consumer Price Index, Honolulu, HI. Accessed 11/30/07, http://data.bls.gov/PDQ/servlet/SurveyOutputServlet?data_tool=dropmap&series_id=CUURA426SA0,CUUSA426SA0.

smokefree law to the average in same months in the year before the law took effect (5.64 days before the law compared to 5.66 days after the law). (See Figures 10-12)

Average Real Daily Spending by Visitors to Hawaii, Overall and From Japan

OVERALL

The average amount of money visitors spend per day when in Hawaii, adjusted for inflation, has varied over time but has generally decreased slightly since late 2005 with some months of increased spending observed. In the 12 months after the law took effect, the average real daily spending per visitor was \$182.15 while it was \$184.53 in the same 12 months in the year before the law took effect. (See Figures 13-15).

JAPAN

Visitors from Japan spend per day more than the average visitor to Hawaii (although their stays are shorter on average). Decreases in daily spending were observed in 2004 and 2005, which rebounded in 2006, and now a mixed pattern is observed in 2007. In the 12-month period after the smokefree law took effect, real daily spending averaged \$270.37 compared to \$279.75 in the same 12 months before the law took effect. (See Figures 16-18)

Total Real Visitor Monthly Spending, Overall and From Japan

OVERALL

The total visitor spending per month is a product of the number of visitors per month, the average number of days they spend in Hawaii, and the amount of money they spend each day. Total visitor spending peaks in June, July, and August as well as in December. Growth in total spending was observed in 2005 with modest decreases observed since mid-2006. In the 12-month post-law period, visitors spent an average of \$1.018 billion per month in Hawaii, while in the same 12 months in the year before the law visitors spent \$1.038 billion. (See Figures 19-21).

JAPAN

Total real monthly spending by visitors from Japan has experienced consistent modest decreases since a surge in spending in the summer 2004. In the 12 months after the smokefree law, visitors from Japan spent \$168 million per month in Hawaii compared with \$183 million per month in the same period the year before the law took effect. (See Figures 22-24).

Accommodation and Food Services and Drinking Places Employment Data

The number of employees in both the Accommodation and Food Services and Drinking Places industry sectors has increased in each month compared to the same month in the prior year during the entire study period of 2004 to 2007 and generally do not fluctuate much by month. In the 12 months after the smokefree law, there are 212 more employees working in the Accommodation employment sector and 1,591 more employees working in the Food Services and Drinking Places employment sector. (See Figures 25-30).

Summary of Tourism Indicators Analysis

Table 2 provides a summary of the tourism outcomes assessed in this study. The monthly level for each outcome in the 12 months after the law is compared to the same months in the year before the law took effect, and the pre- and post-law averages are presented along with their 95% confidence intervals.

The results provide no evidence of decreases in tourism indicators in the 12 months after the law compared to the same 12 months in the year before the smokefree law took effect. The pre-law and post-law confidence intervals overlap for all eight of the measures for the number of visitors, duration of stay, daily spending, and total visitor spending estimated for all visitors as well as visitors from Japan. In other words, the differences in average levels of each outcome before and after the smokefree law were within the range of variability experienced for these measures and were not unexpectedly high or low. Two additional indicators, the number of employees in the Accommodation and Food Services and Drinking Places industries, were higher after the smokefree law and did not have overlapping confidence intervals. While it's unclear from these data whether the smokefree law was responsible for the higher post-law employment levels, these data do not suggest the law was detrimental to employment in these sectors.

Conclusions

This report set out to provide an initial descriptive look at the available economic data for the hospitality and tourism industries in Hawaii to assess whether there was evidence to indicate that the November 2006 Hawaii Smokefree Law caused economic harm to those industries.

Based on the available data, there is no evidence to suggest that the Hawaii Smokefree Law has harmed the hospitality or tourism industries as a whole. Employment in the 'Accommodation' and 'Food Services and Drinking Places' industries is up after the smokefree law and total visitor spending is comparable before and after the law. These findings are consistent with the published scientific literature that indicates that smokefree laws do not harm hospitality industries¹⁰.

A strength of this study is the reliance on multiple objective sources of data. The economic indicator data on the tourism industry, in particular, is exceptionally thorough and offers an unprecedented opportunity to study the potential impact of the smokefree law on this industry. This report is one of the few to provide as much detailed data on tourism indicators before and after a statewide smokefree law.

Because the smokefree law took effect only a year ago and the time needed for economic data to become publicly available, there are limited data after the law, which prohibits more sophisticated econometric analytical techniques to isolate potential

¹⁰. Scollo M, Lal A, Hyland A, Glantz S. Review of the quality of studies on the economic effects of smoke-free policies on the hospitality industry. *Tobacco Control*. 2003 Mar;12(1):13-20.

impacts. In addition, other data sources may be available to provide complementary data to assess if the smokefree law caused adverse economic outcomes in Hawaii. For example, the Honolulu Liquor Commission tracks sales, employment, and licensure data for establishments with different types liquor licenses on Oahu on an annual basis. The most recent data available are for fiscal year 2007, which covers the period of July 1, 2006 to June 30, 2007. Because the smokefree law took effect November 16, 2006, the most recent data from the Honolulu Liquor Commission data includes 4.5 months of pre-law data and is not particularly informative to help determine if the smokefree law influenced bar business on Oahu. More data will be available to study this topic in finer detail as more time elapses; however, the initial descriptive review does not suggest that the hospitality and tourism industries are doing worse after the smokefree law.

The data presented generally rely on aggregate level measures and are not ideal to assess trends in subgroups of businesses. Overall business indicators are not lower after the smokefree law; however, it may be worthwhile to continue to study possible impacts to industry segments as more data become available over time.

Concerns were initially raised that the smokefree law would drive away visitors from Japan; however, the data so far indicate that post-law spending from Japanese tourists is comparable to pre-law spending. It should be noted that the decrease in visitors from Japan in 2003 occurred at the same time the Nikkei stock market fell to 20 year lows in the same year. This suggests that variables such as economy strength and currency valuations play an important part in deciding the levels of tourism in Hawaii.

Any potential economic impacts of the smokefree law, whether positive or negative, could take on one of three forms or some combination of these forms: 1) There could be an immediate change in business indicators with pre-existing trends continuing. This would be a one-time change; 2) There could be an immediate change in the pre-existing trends. Effects of this sort would be small at first and grow over time; and 3) There could be no immediate impact, but effects might manifest after some time has passed. A fourth possibility, of course, is that there is no overall impact whatsoever. While it is difficult to rule out a delayed effect or a small change in the pre-existing trend in the economic outcomes assessed in this study, there is no evidence to support an immediate decrease in economic indicators after the smokefree law. It should also be noted that any observed changes in economic indicators (up or down) are not necessarily attributable to the smokefree law because there are many factors that all interact to drive business outcomes.

In summary, initial findings show that there is no evidence that the Hawaii Smokefree Law has harmed the hospitality and tourism industries as a whole. Employment in the 'Accommodation' and 'Food Services and Drinking Places' industries is up after the smokefree law and total visitor spending is comparable before and after the law.

Table 1. Summary of Data Sources Used in This Report.

Category	Item	Data Source	Who Collected	Reporting Period	Time Frame	Description
Monthly Visitor Statistics	Arrivals at a Glance	http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism .	Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division.	Monthly	2003-2007	Visitor counts derived from Domestic In-flight survey and the International Departure survey.
Monthly Visitor Statistics	Average Length of Stay in days	http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism .	Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division.	Monthly	2003-2007	Average number of days visitors were present including the day of arrival and of departure.
Monthly Visitor Statistics	Per Person Per Day Spending (\$)	http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism .	Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division.	Monthly	2003-2007	Average amount spent per day while in Hawaii
Monthly Visitor Statistics	Total Expenditures (\$ mil.), raw \$	http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism .	Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division.	Monthly	2003-2007	The U.S. dollar amount spent in Hawai'i attributed to a visitor.
Economic Data, Monthly Economic Indicators.	Accommodation (jobs)	http://www.hawaii.gov/dbedt/info/economic .	Hawaii Department of Labor & Industrial Relations and Hawaii Department of Taxation	Monthly	2003-2007	Total number of jobs
Economic Data, Monthly Economic Indicators.	Food Services & Drinking Places (jobs)	http://www.hawaii.gov/dbedt/info/economic .	Hawaii Department of Labor & Industrial Relations and Hawaii Department of Taxation	Monthly	2003-2007	Total number of jobs
Consumer Price Index	Consumer Price Index for Honolulu	http://data.bls.gov/PDQ/servlet/SurveyOutputServlet?data_tool=dropmap&series_id=CUURA426SA0,CUUSA426SA0 .	U.S. Department of Labor. Bureau of Labor Statistics.	Twice per year	2003-2007	The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers.
Oahu Specific Data	Gross Liquor Sales - Oahu		Honolulu Liquor Commission, Special Data Request	Annually	2003-2007	Amount of liquor sales in various venue types (brew pubs, hotels, etc.)
Oahu Specific Data	Hospitality Employment		Honolulu Liquor Commission, Special Data Request	Annually	2004-2007	Employment in various venue types (brew pubs, hotels, etc.)
Oahu Specific Data	Liquor licenses		Honolulu Liquor Commission, Special Data Request	Annually	2004-2007	Number of opened and closed liquor licenses by venue type.

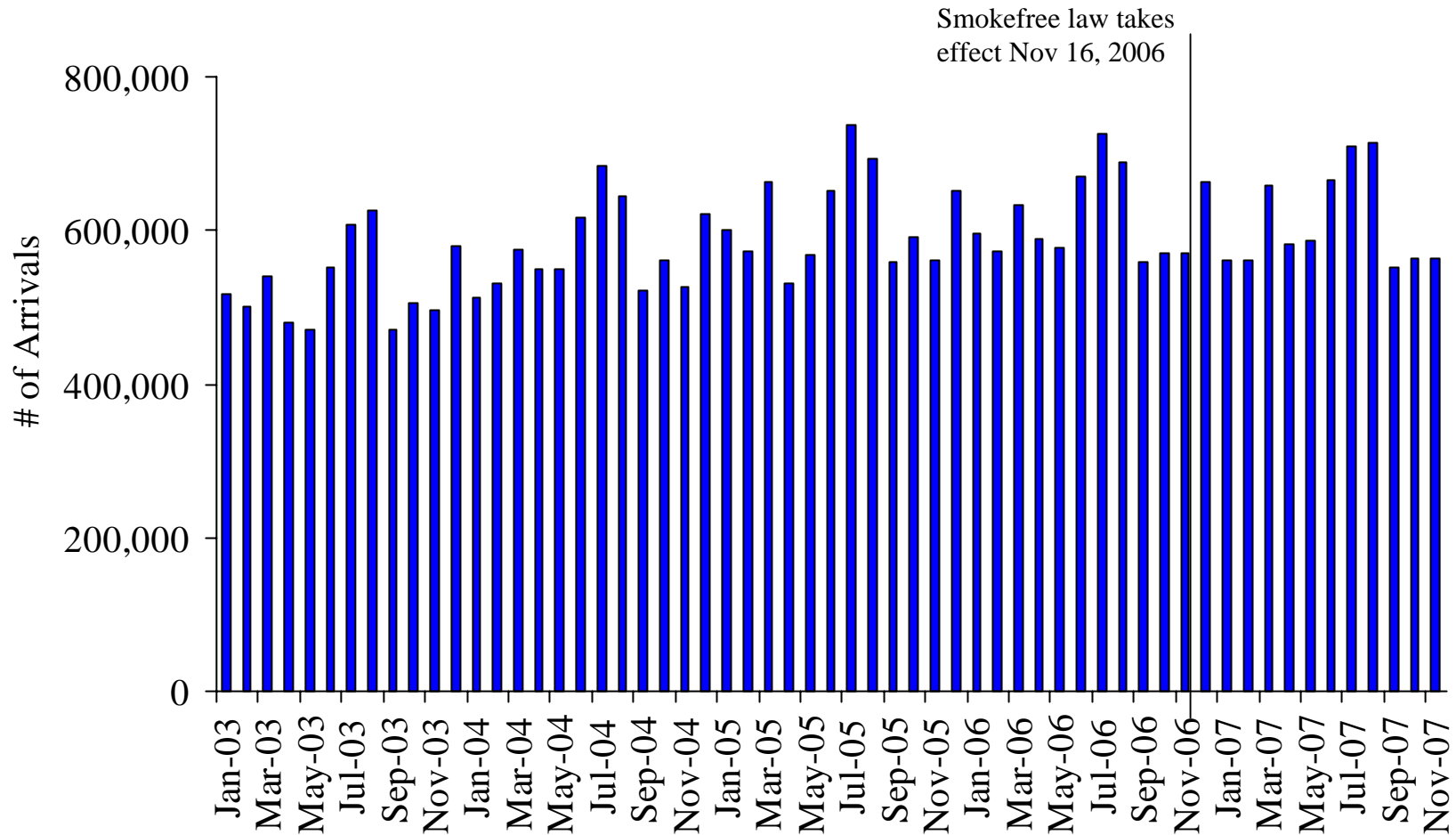
Table 2. Average levels and 95% confidence intervals of tourism indicators overall in Hawaii and from visitors from Japan, Dec 05-Nov 06 (pre-law) to Dec 06-Nov 07 (post-law).

	Overall				Japan			
	Pre-Law	95% CI	Post-Law	95% CI	Pre-Law	95% CI	Post-Law	95% CI
# Arrivals	616,895	(581,761 - 652,028)	615,106	(575,732 - 654,479)	116,200	(109,436 - 122,964)	110,369	(102,043 - 118,695)
Length of Stay (Days)	9.12	(8.79 - 9.46)	9.10	(8.80 - 9.40)	5.64	(5.48 - 5.81)	5.66	(5.51 - 5.80)
Average daily spending (\$)	\$184.53	(\$181.00 - \$188.05)	182.15	(\$177.89 - \$186.41)	\$279.75	(\$268.48 - \$291.00)	\$270.39	(\$257.89 - \$282.84)
Total visitor dollars (in Millions)	\$1,038	(\$969 - \$1,107)	\$1,018	(\$949 - \$1,087)	\$183	(\$172 - \$193)	\$168	(\$156 - \$180)
# Accomodation employees	39,071	(38,979 - 39,163)	39,283	(39,197 - 39,369)	N/A	N/A	N/A	N/A
# Food Service employees	56,938	(56,620 - 57,255)	58,529	(58,088 - 58,971)	N/A	N/A	N/A	N/A

Note: The Pre-Law period is from December 2005 to November 2006, and the Post-Law period is from December 2006 to November 2007.

Note: Average daily spending and total visitor dollar amounts are adjusted to 2007 dollars based on the CPI for Hawaii.

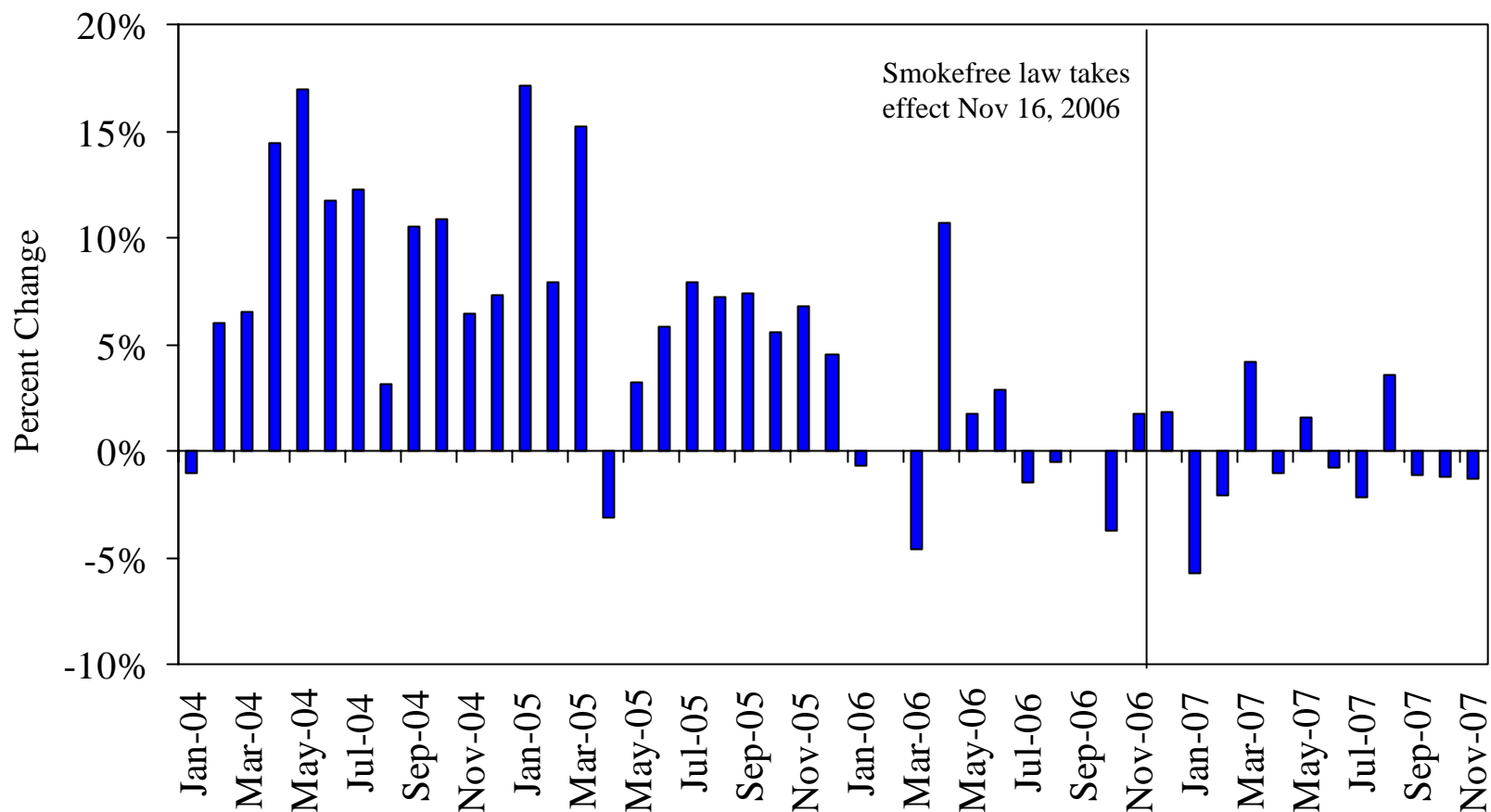
Figure 1. Number of Arrivals into Hawaii, January 2003 to November 2007



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from

<http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism> .

Figure 2. Year-Over-Year Percent Change in the Number of Arrivals into Hawaii, January 2004 to November 2007

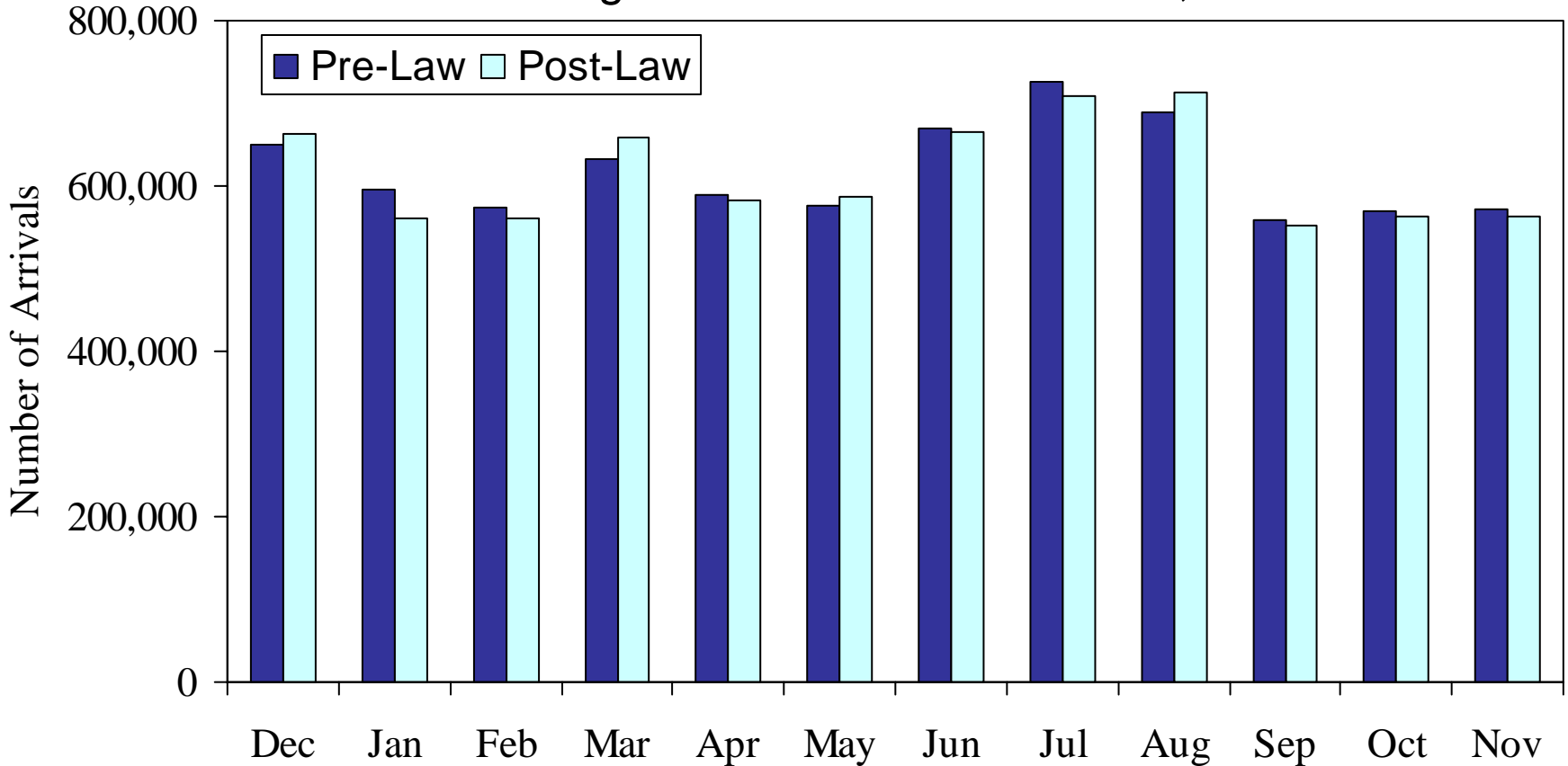


Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism>.

Figure 3. Number of Arrivals into Hawaii by Month Before and After the Smokefree Law

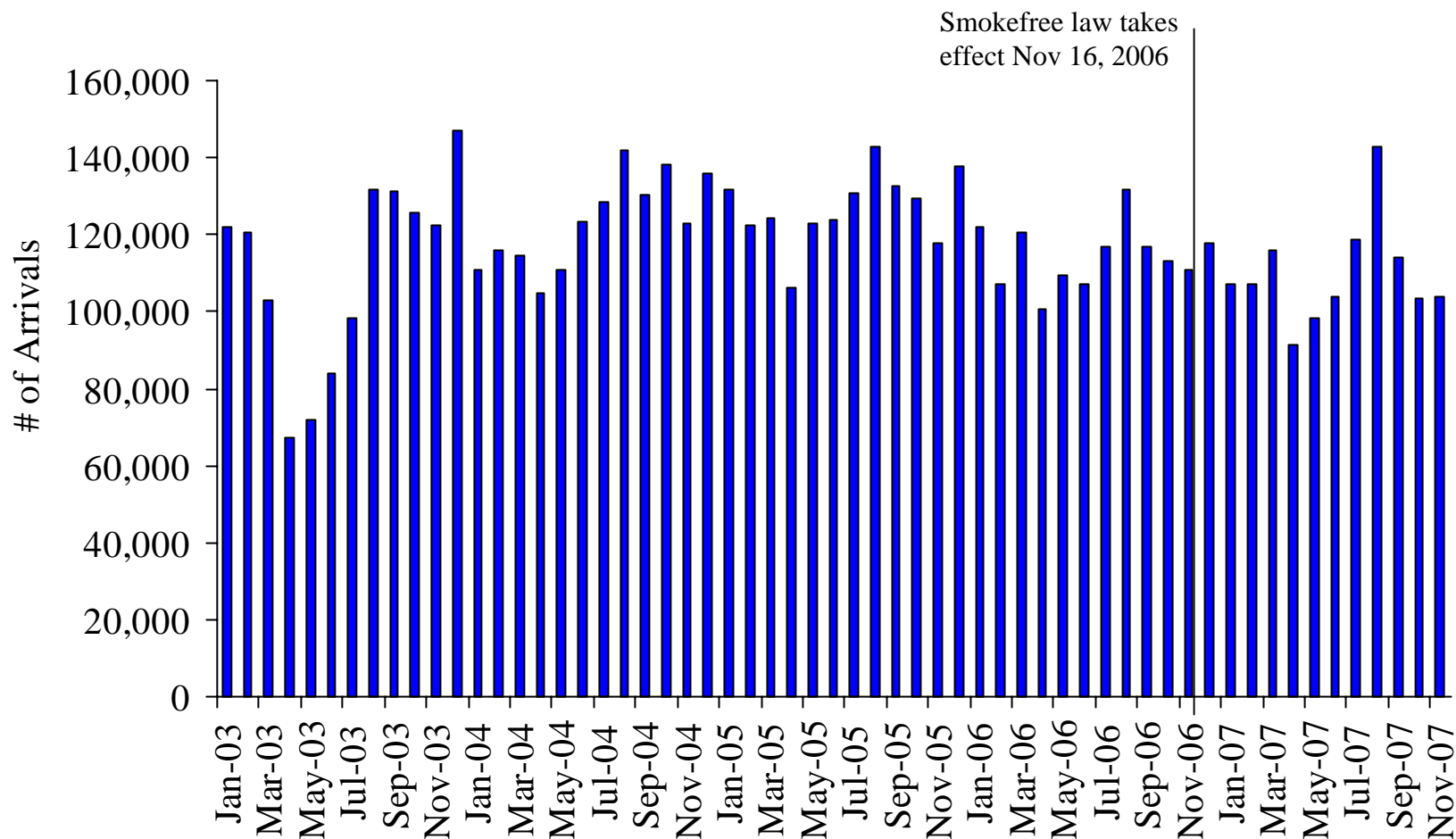
Pre-law average number of visitors = 616,895

Post-law average number of visitors = 615,106



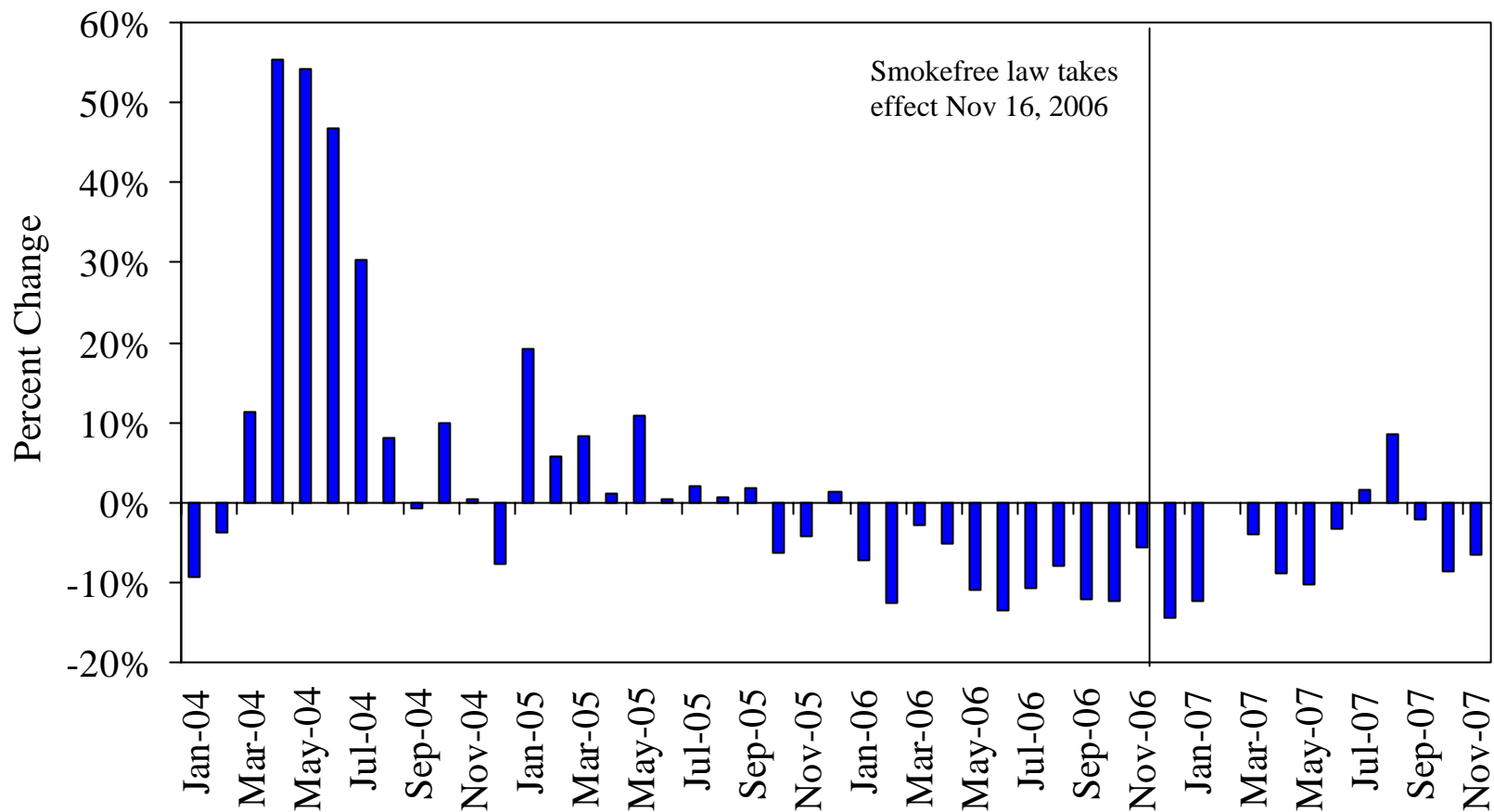
Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism>.

Figure 4. Number of Arrivals into Hawaii from Japan, January 2003 to November 2007



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism>.

Figure 5. Year-Over-Year Percent Change in the Number of Arrivals into Hawaii from Japan, January 2004 to November 2007

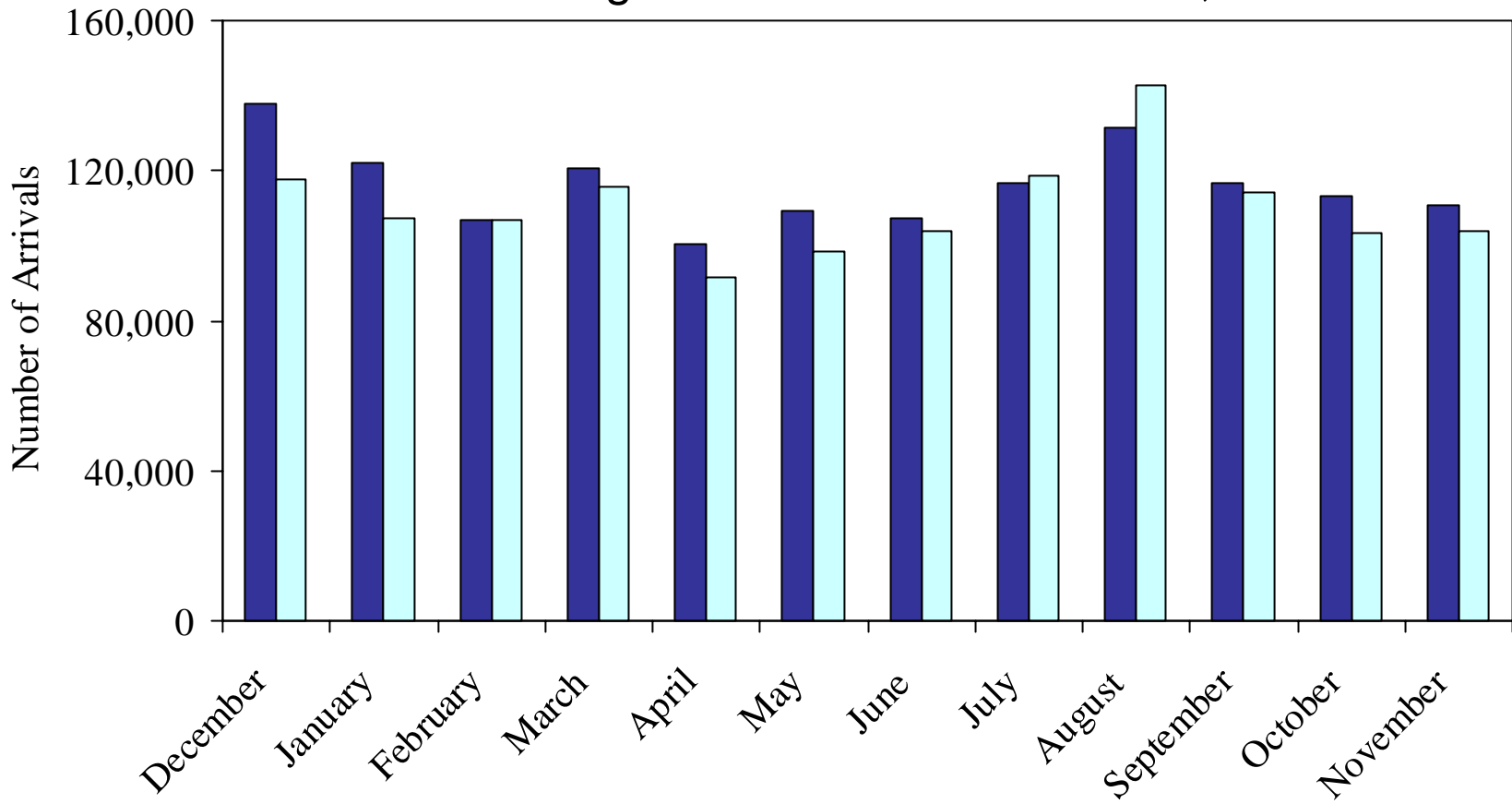


Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism>.

Figure 6. Number of Arrivals from Japan into Hawaii by Month Before and After the Smokefree Law

Pre-law average number of visitors = 116,200

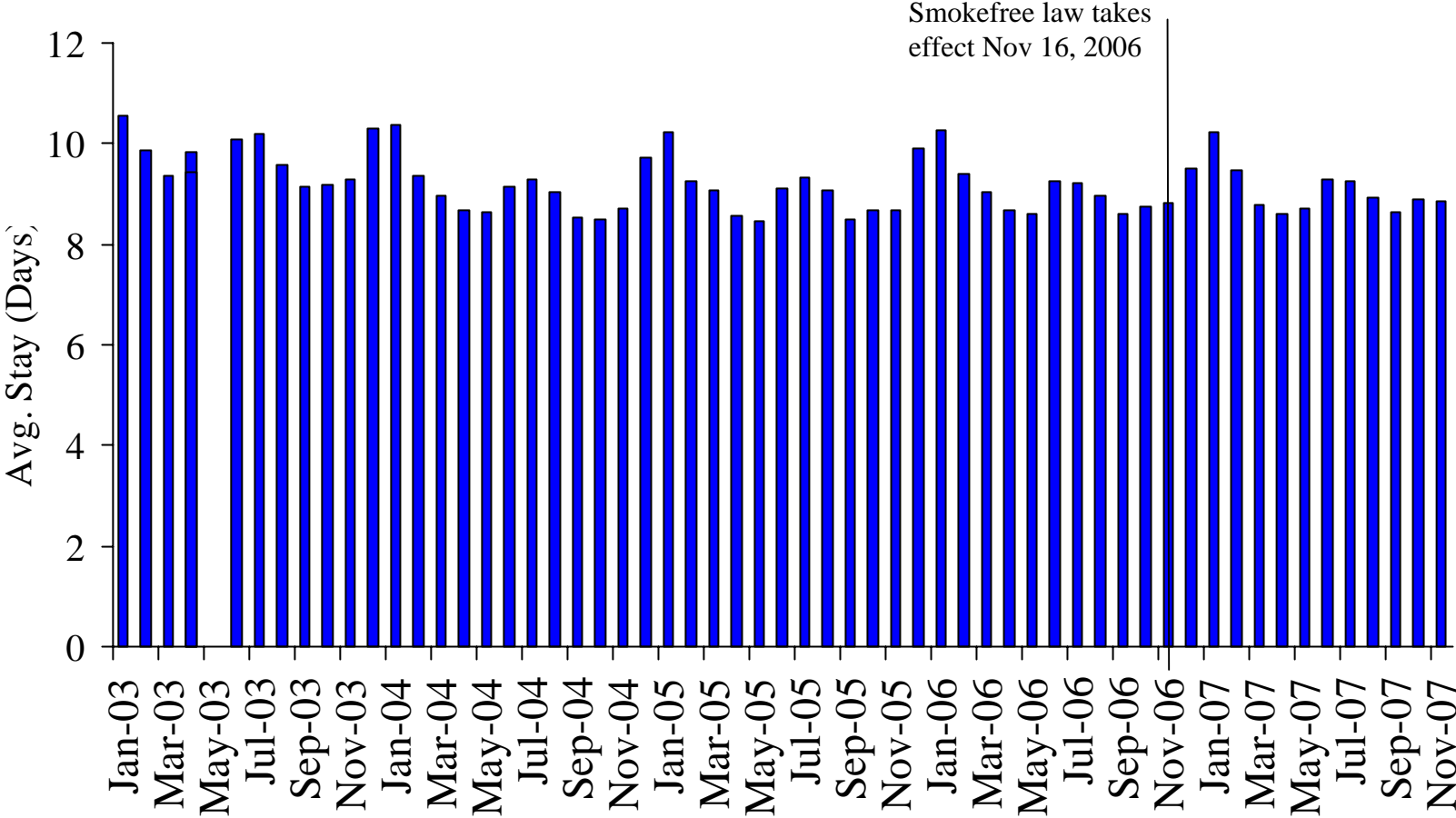
Post-law average number of visitors = 110,369



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from

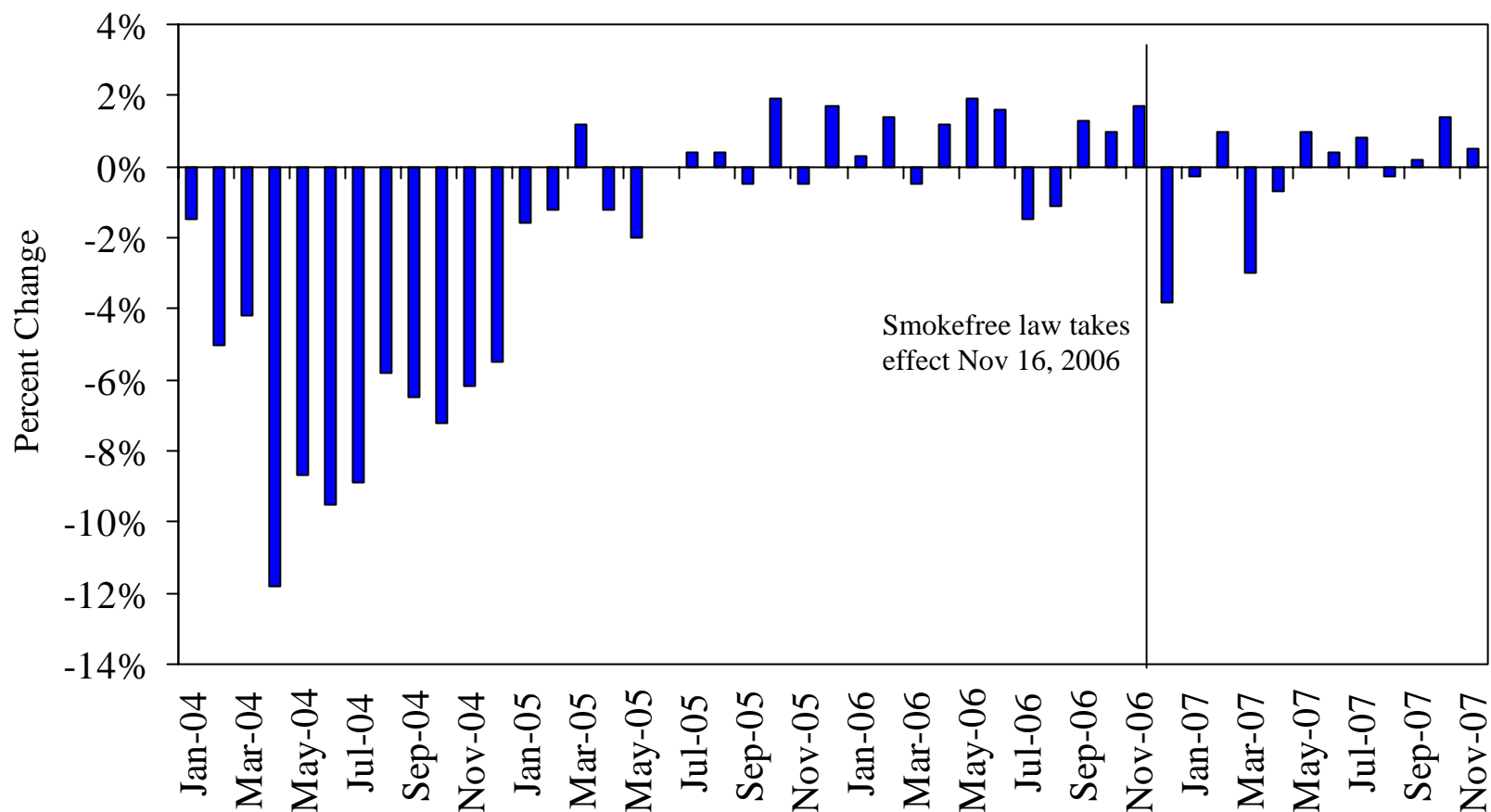
<http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism> .

Figure 7. Average Length of Stay for Arrivals into Hawaii, January 2003 to November 2007



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism> .

Figure 8. Year-Over-Year Percent Change in the Length of Stay for Arrivals into Hawaii, January 2004 to November 2007

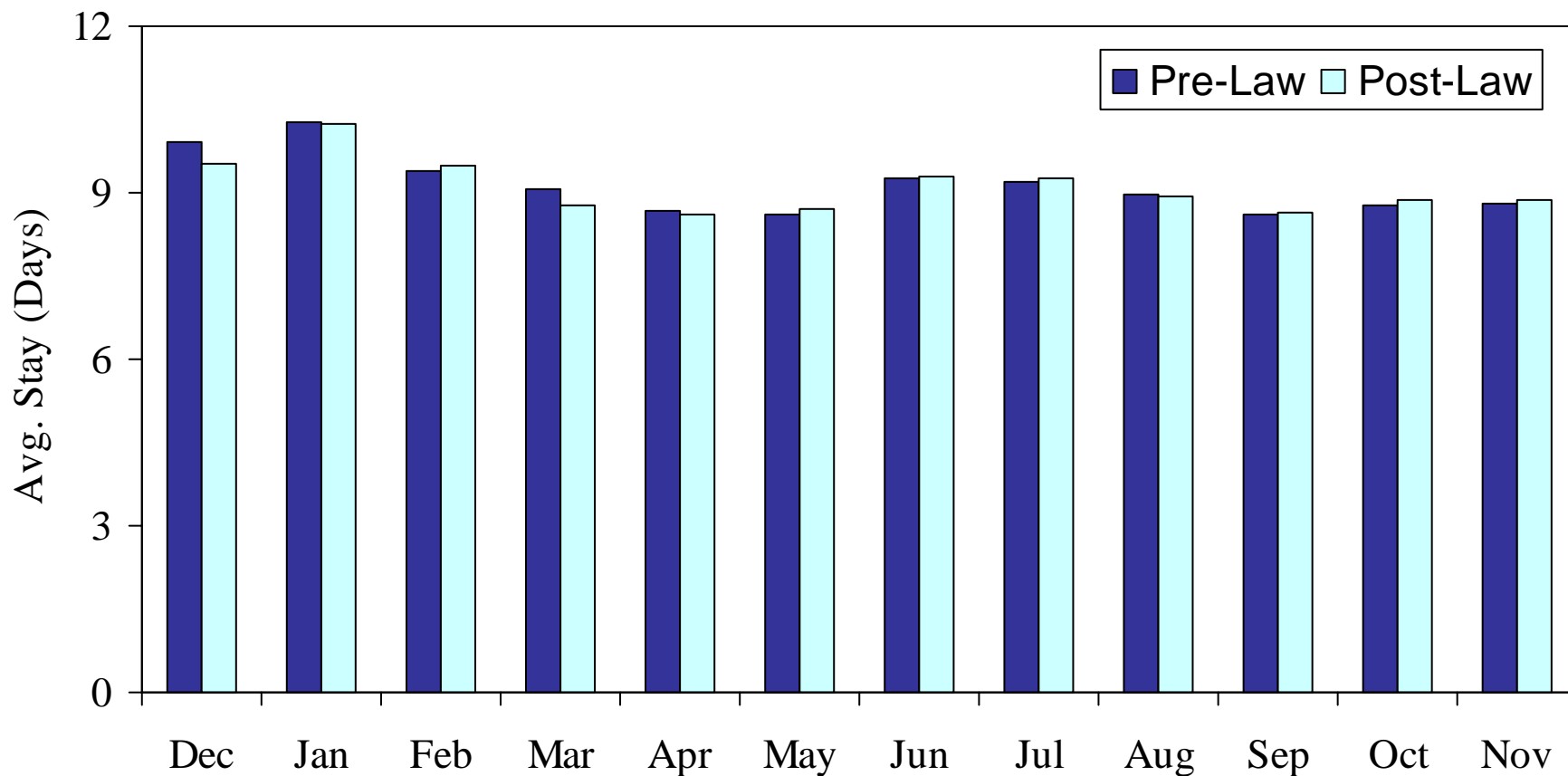


Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism>.

Figure 9. Average Length of Stay by Visitors into Hawaii by Month Before and After the Smokefree Law

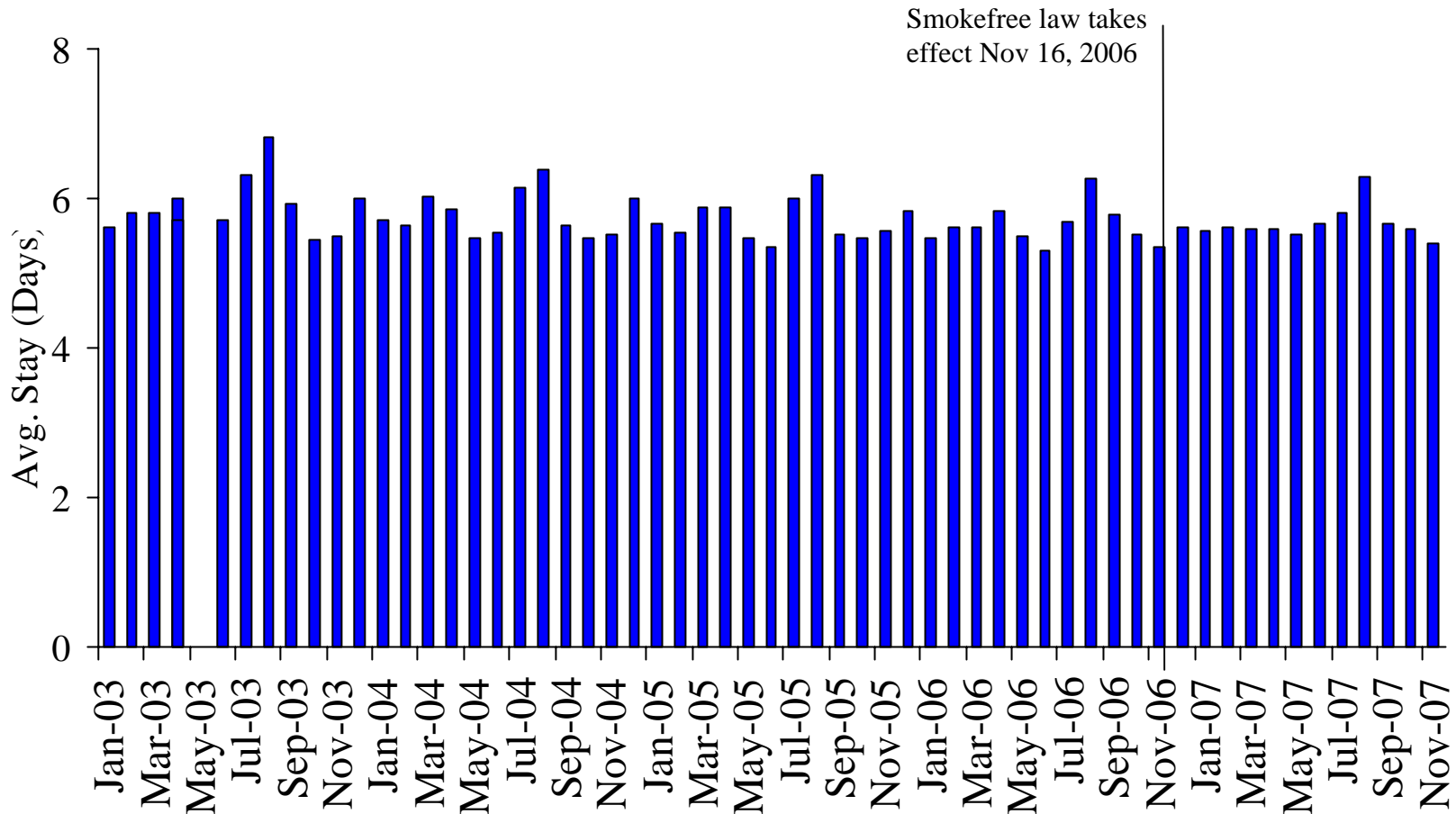
Average length of stay before the law = 9.12 days

Average length of stay after the law = 9.10 days



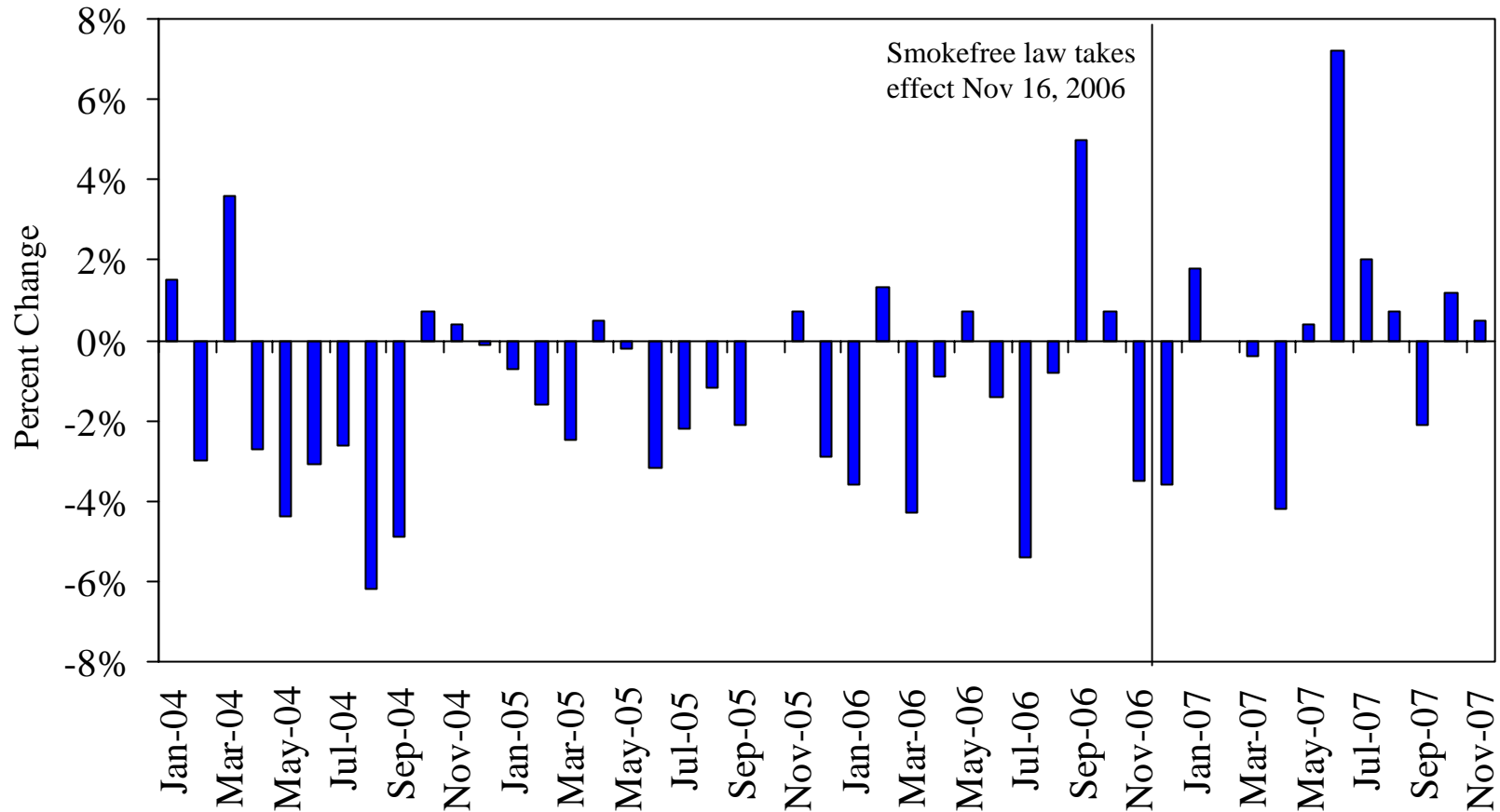
Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism>.

Figure 10. Average Length of Stay for Arrivals into Hawaii from Japan, January 2003 to November 2007



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism>.

Figure 11. Year-Over-Year Percent Change in the Length of Stay for Arrivals into Hawaii from Japan, January 2004 to November 2007

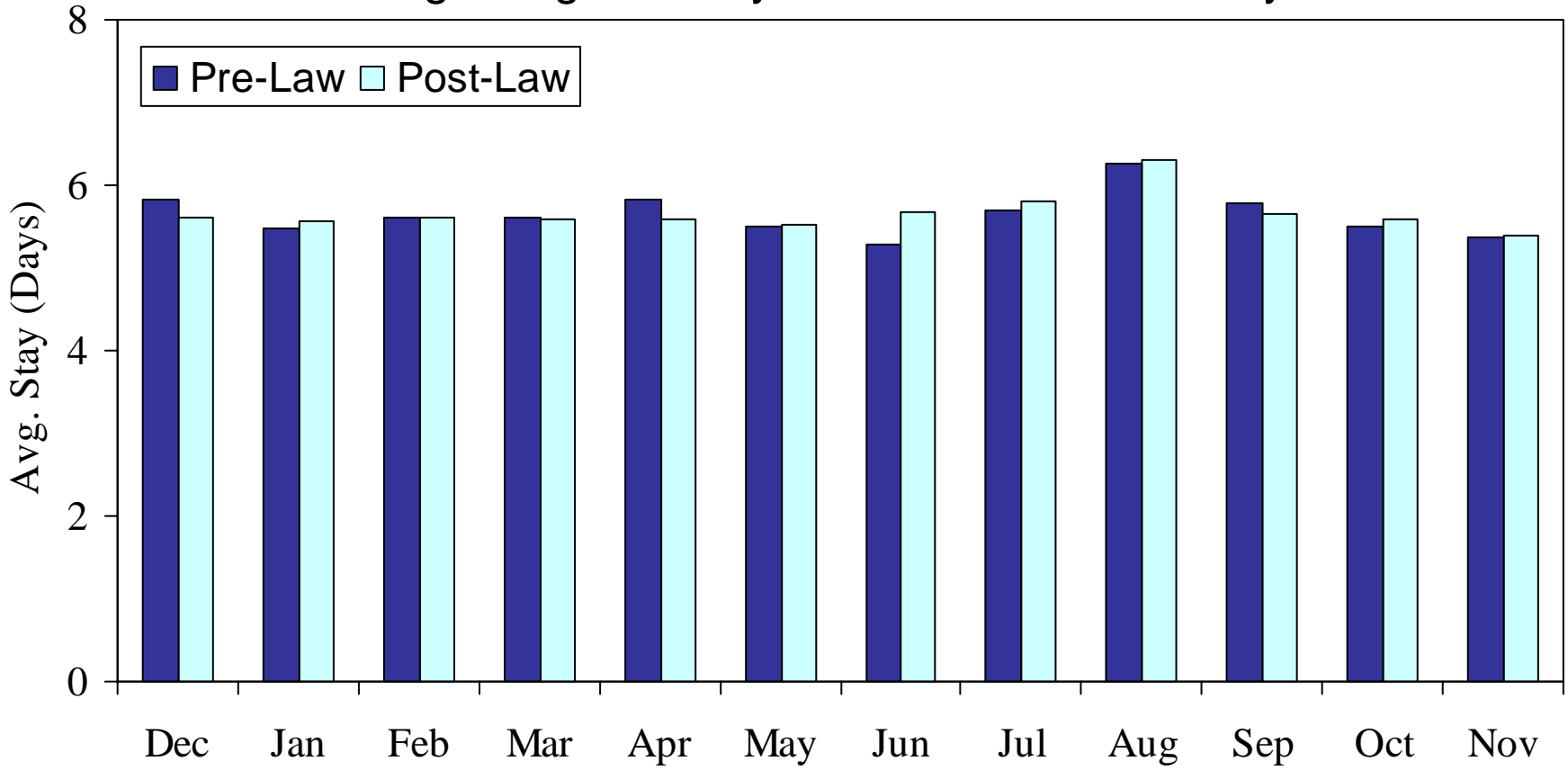


Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism>.

Figure 12. Average Length of Stay by Visitors from Japan into Hawaii by Month Before and After the Smokefree Law

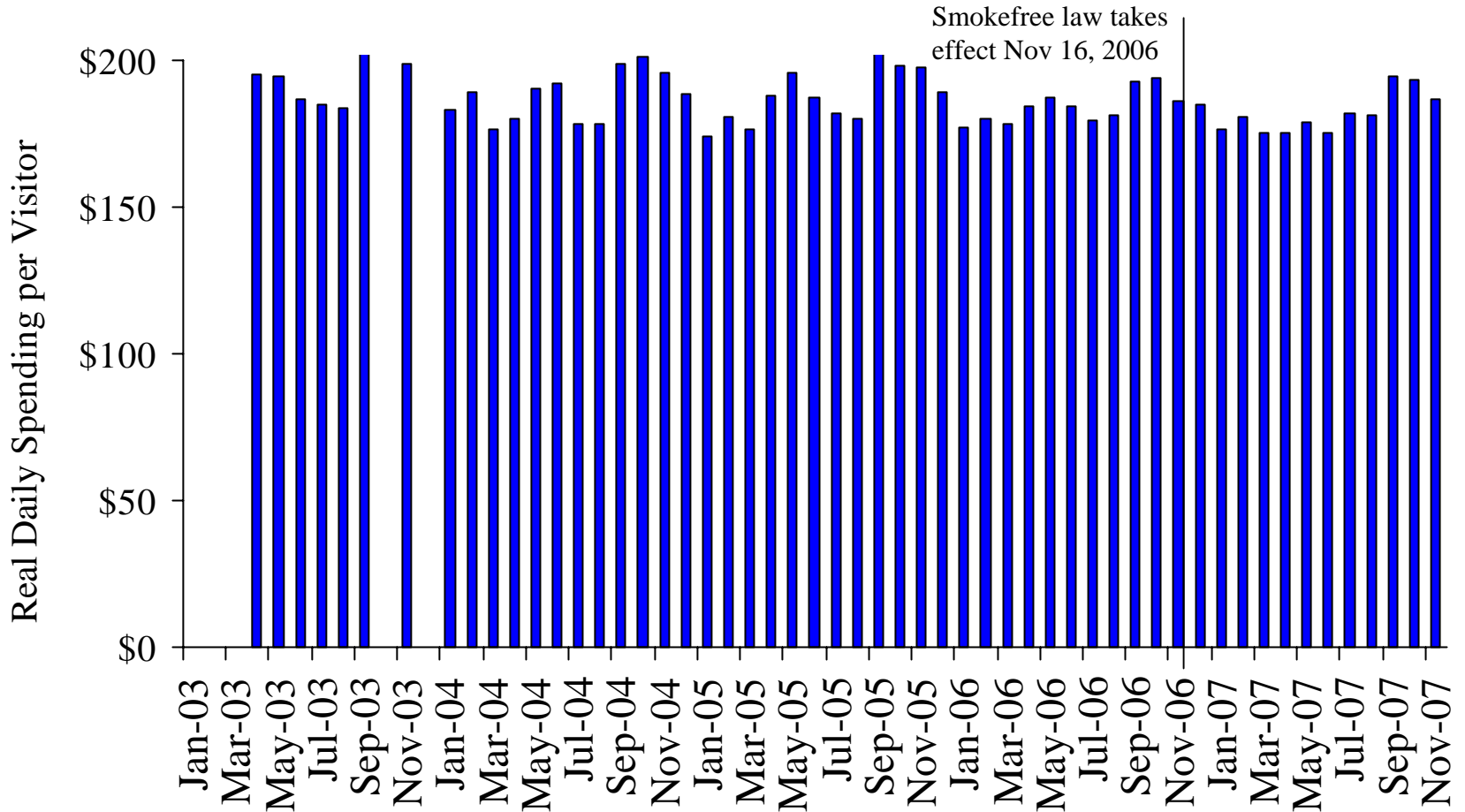
Average length of stay before the law = 5.64 days

Average length of stay after the law = 5.66 days



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism> .

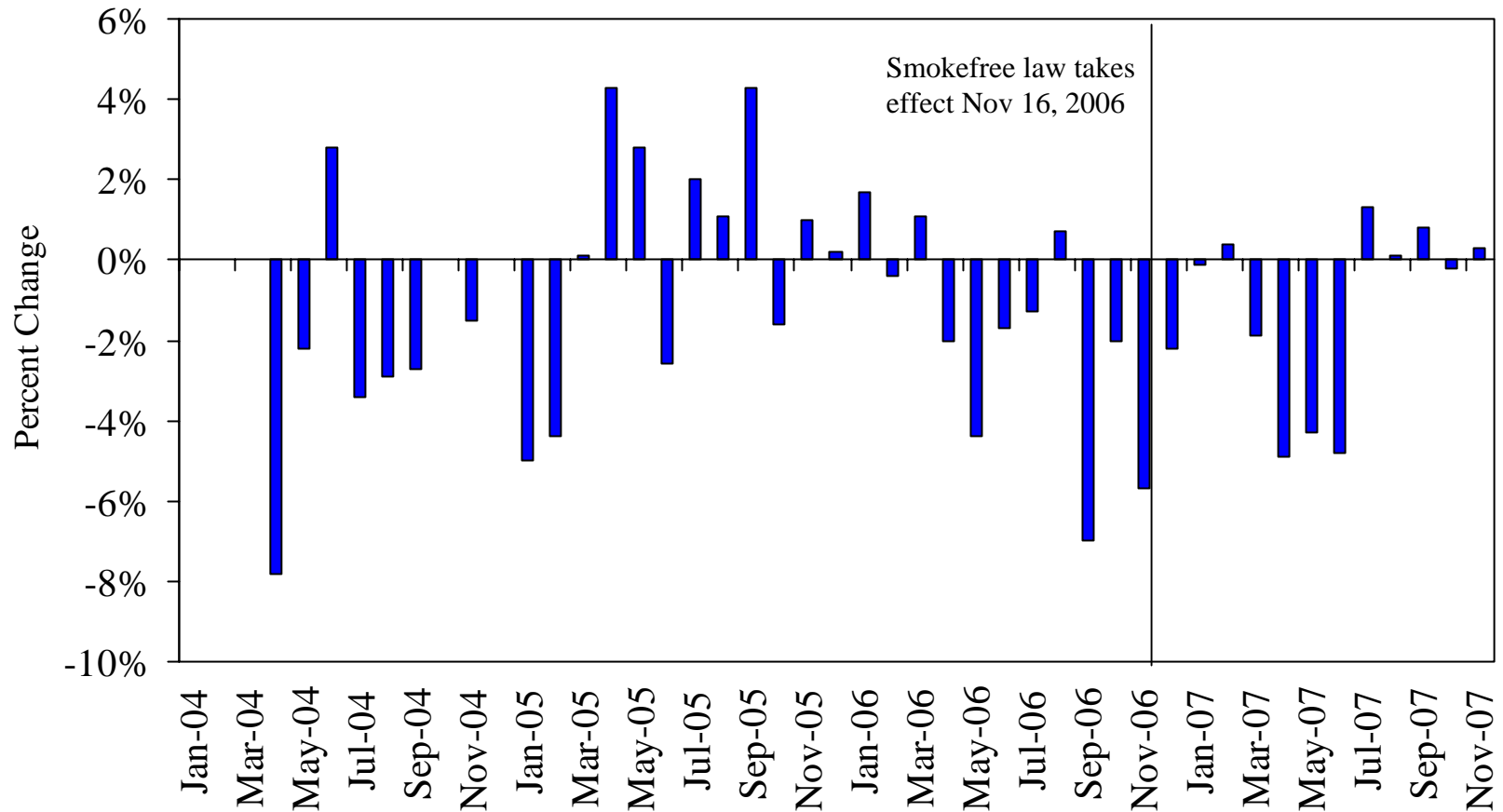
Figure 13. Real Daily Spending per Visitor, January 2003 to November 2007



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism> .

(Adjusted to 2007 dollars using the Consumer Price Index for Hawaii)

Figure 14. Year-Over-Year Percent Change in the Real Daily Spending per Visitor, January 2004 to November 2007

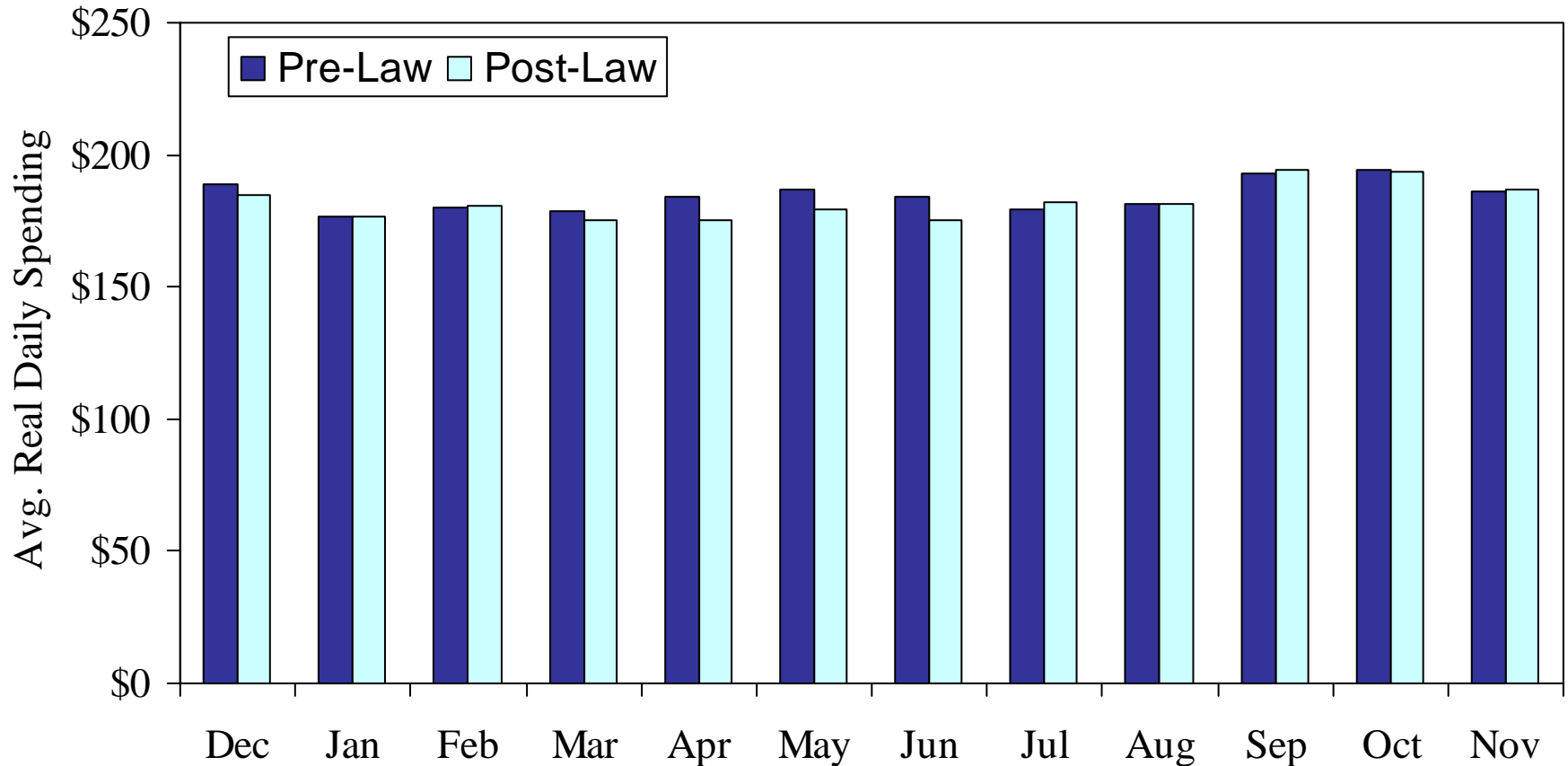


Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism>.

Figure 15. Average Daily Spending by Month Before and After the Smokefree Law

Average real daily spending before the law = \$184.53

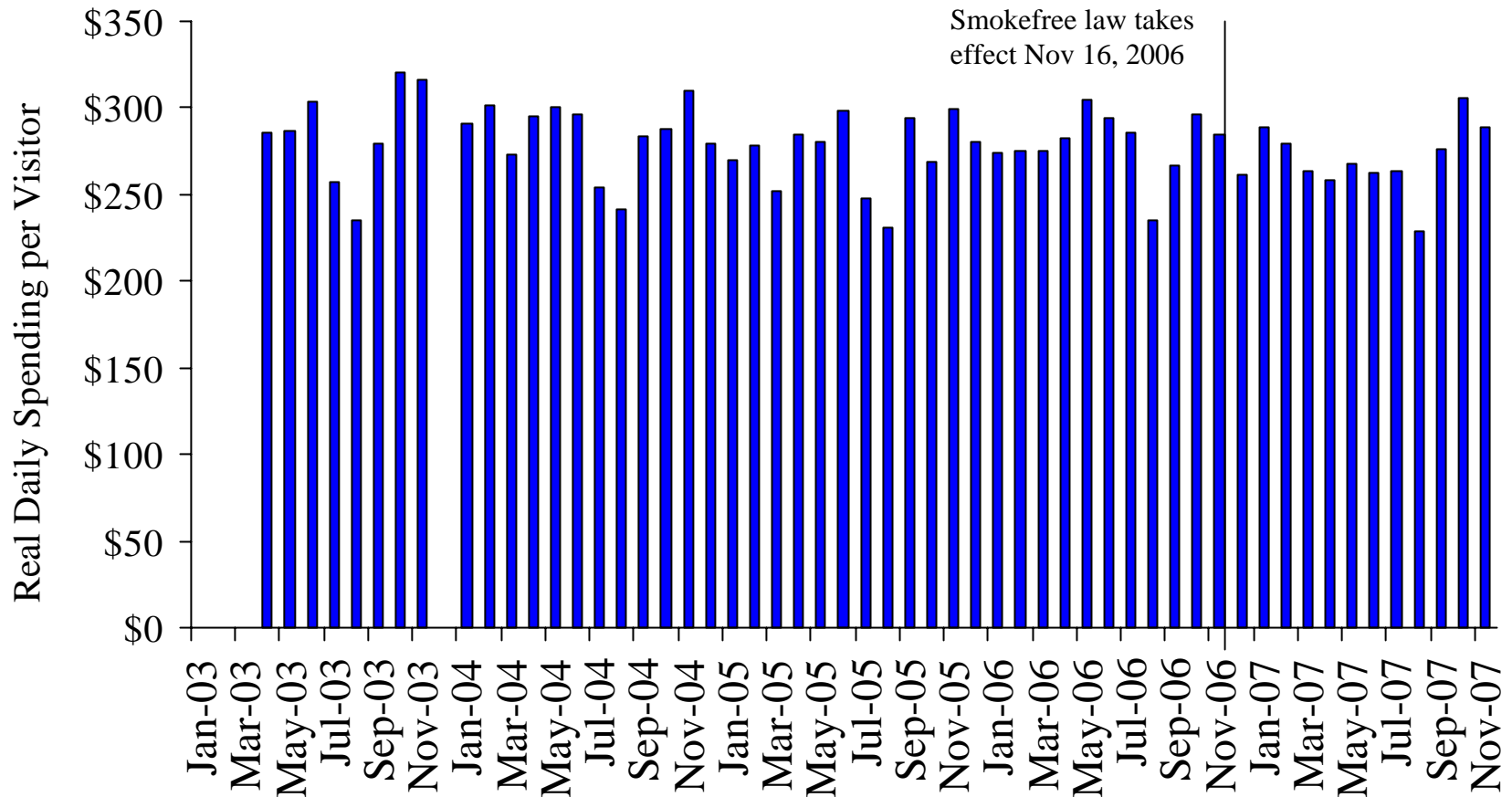
Average real daily spending after the law = \$182.15



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism>.

(Adjusted to 2007 dollars using the Consumer Price Index for Hawaii)

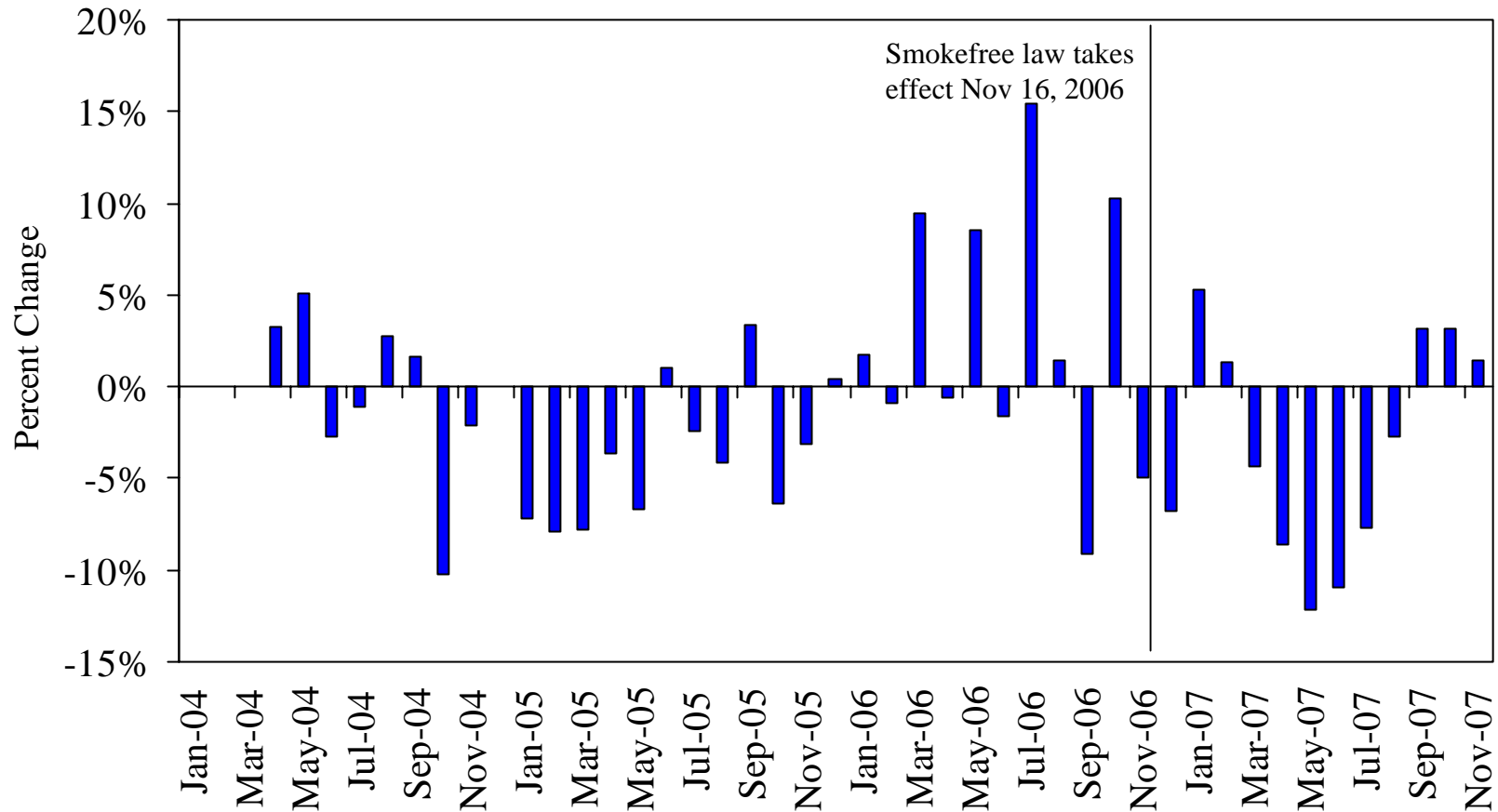
Figure 16. Real Daily Spending per Visitor from Japan, January 2003 to November 2007



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism> .

(Adjusted to 2007 dollars using the Consumer Price Index for Hawaii)

Figure 17. Year-Over-Year Percent Change in the Real Daily Spending per Visitor from Japan, January 2004 to November 2007

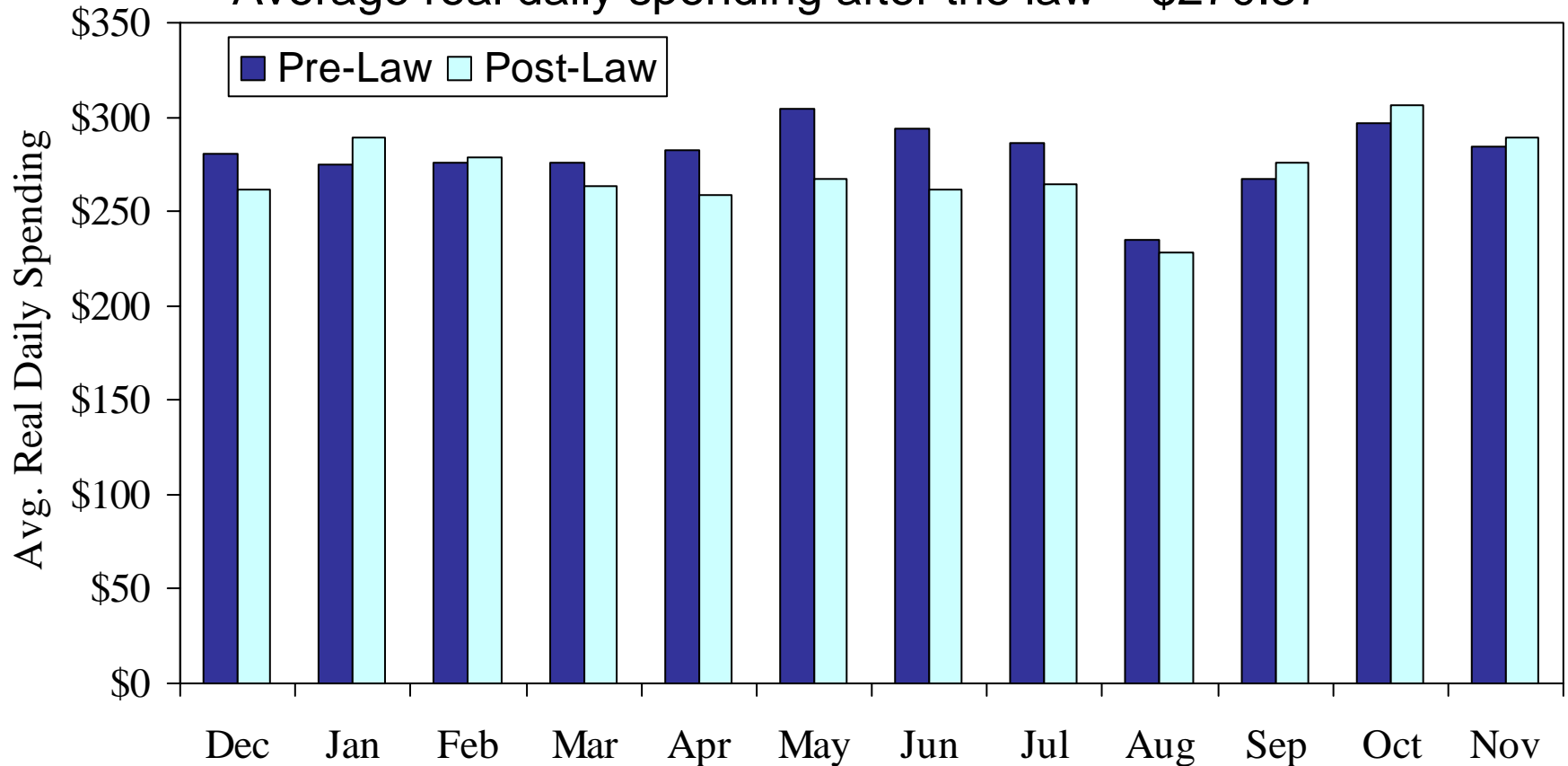


Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism>.

Figure 18. Average Daily Spending by Japanese Visitors by Month Before and After the Smokefree Law.

Average real daily spending before the law = \$279.75

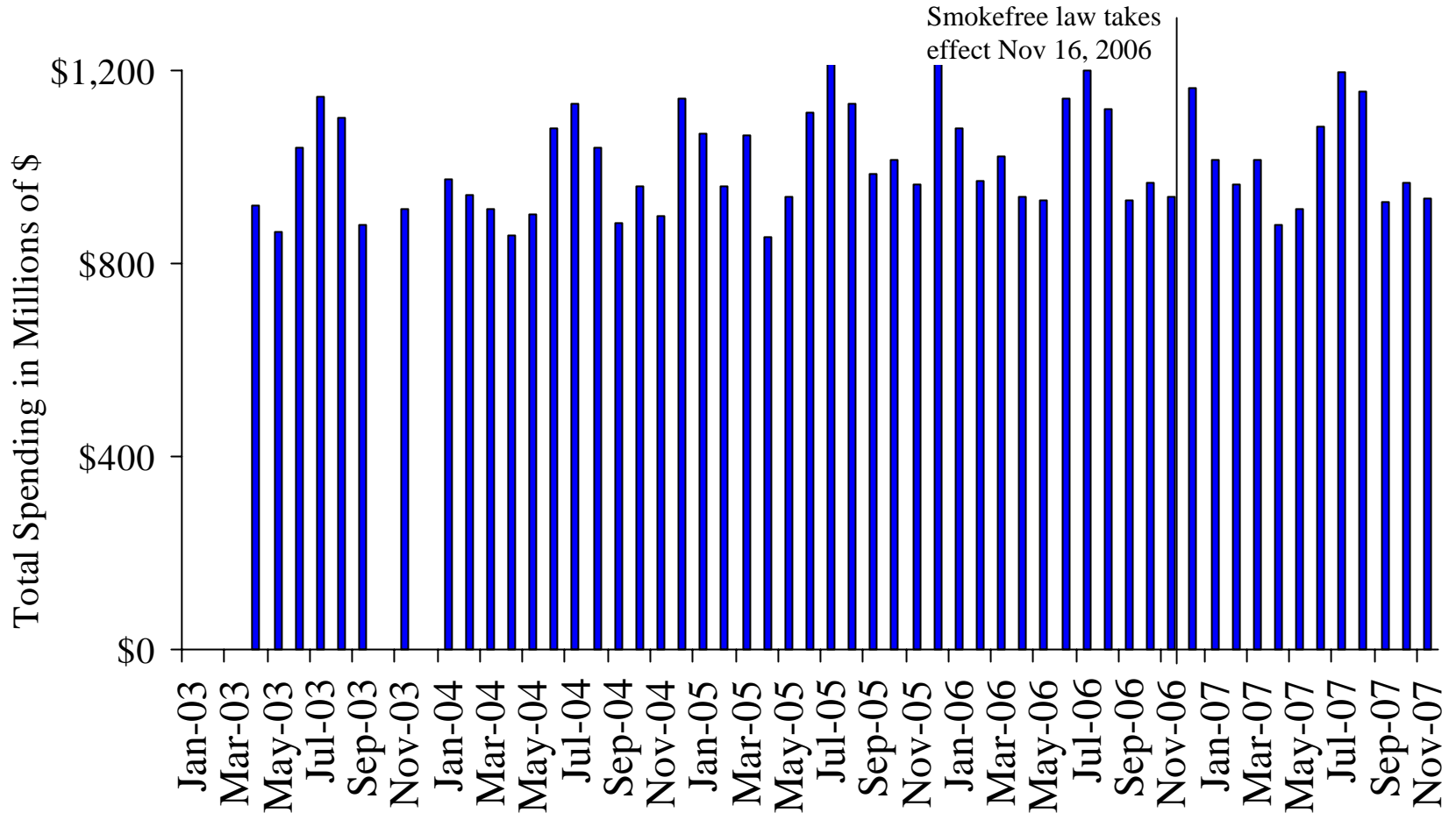
Average real daily spending after the law = \$270.37



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism>.

(Adjusted to 2007 dollars using the Consumer Price Index for Hawaii)

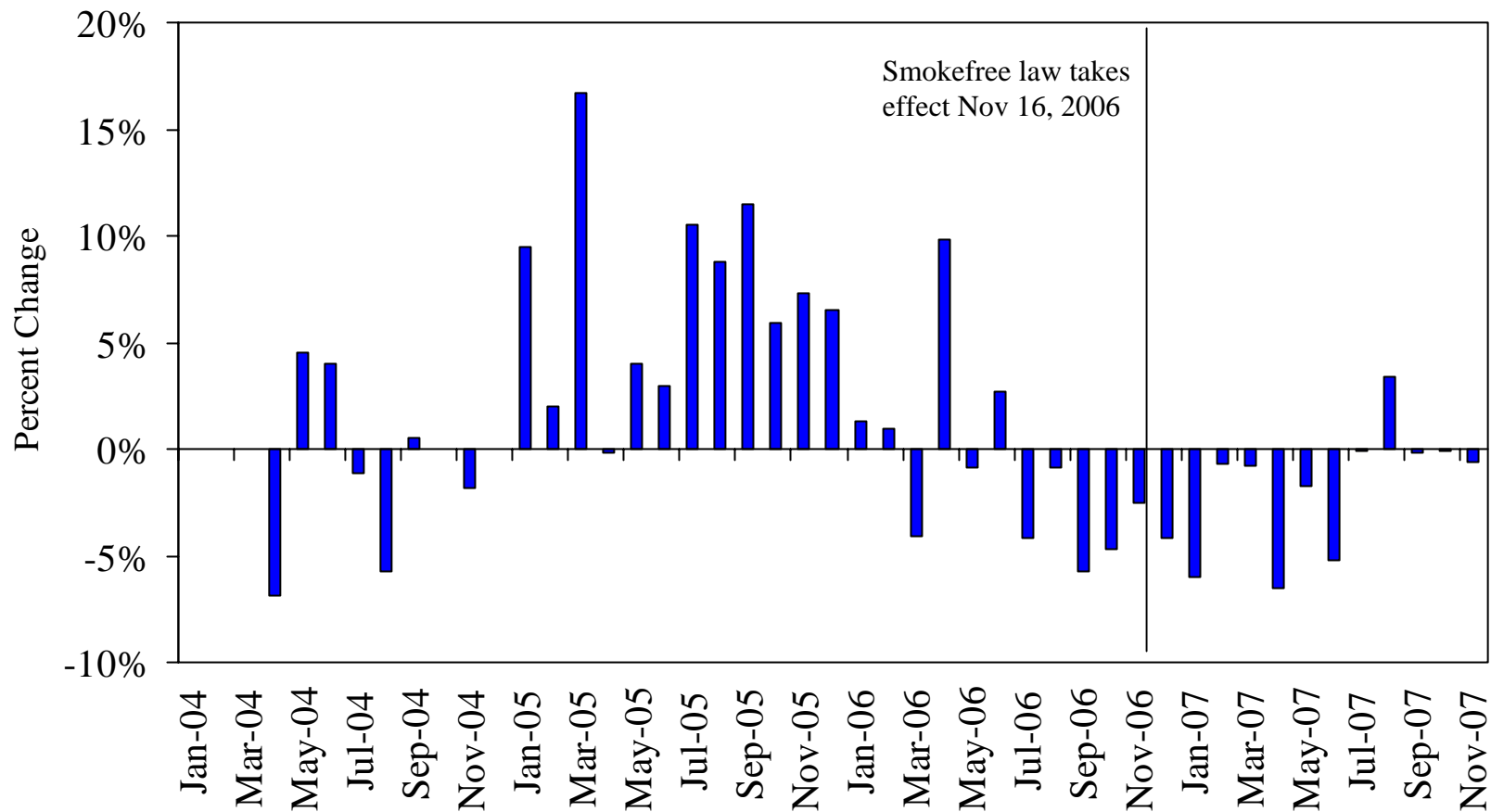
Figure 19. Total Real Monthly Spending by Visitors, January 2003 to November 2007



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism> .

(Adjusted to 2007 dollars using the Consumer Price Index for Hawaii)

Figure 20. Year-Over-Year Percent Change in the Total Real Monthly Spending per Visitor, January 2004 to November 2007

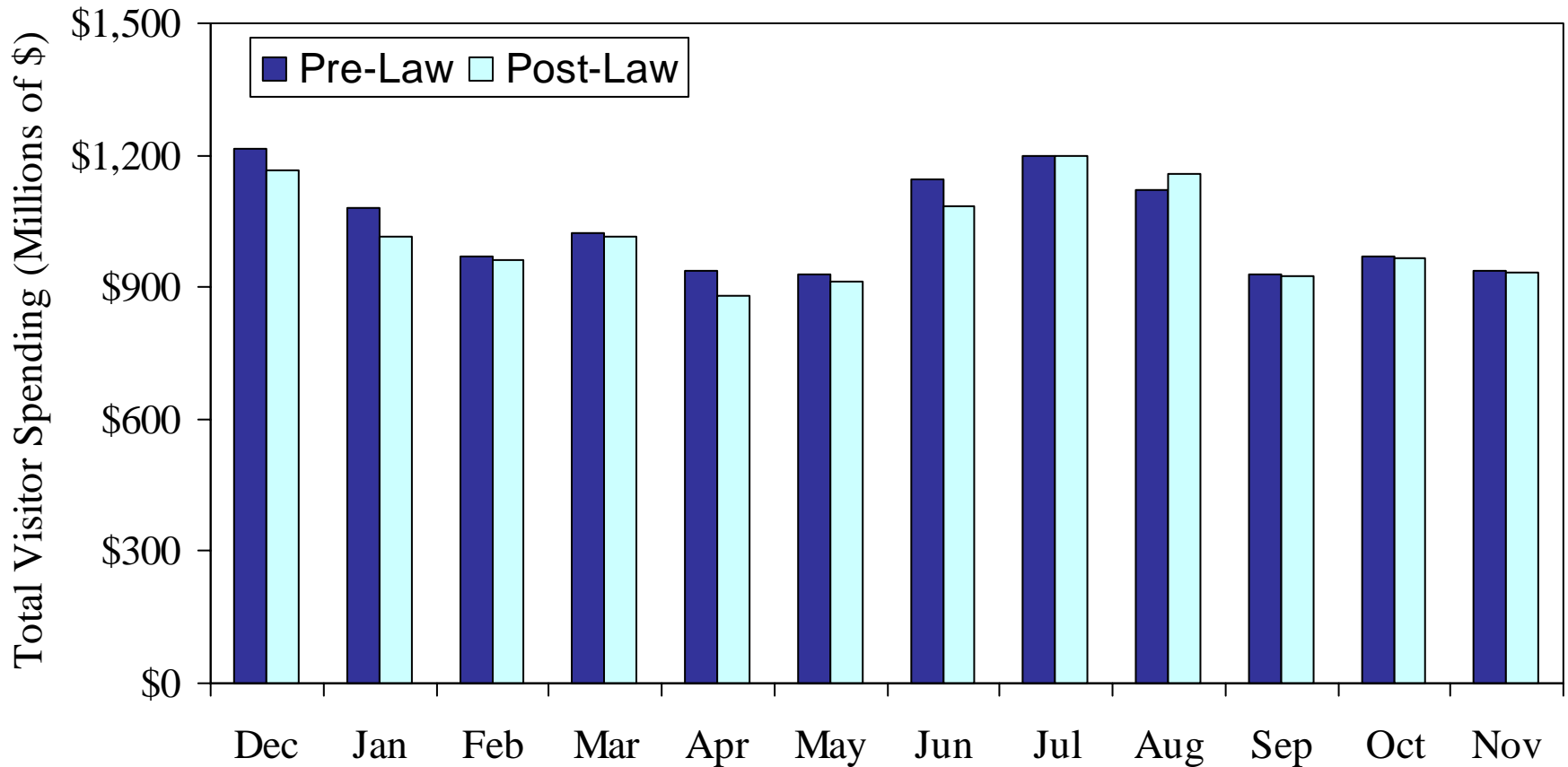


Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism>.

Figure 21. Total Monthly Visitor Spending by Month Before and After the Smokefree Law

Average real monthly visitor spending in Hawaii before the law = \$1.038 billion

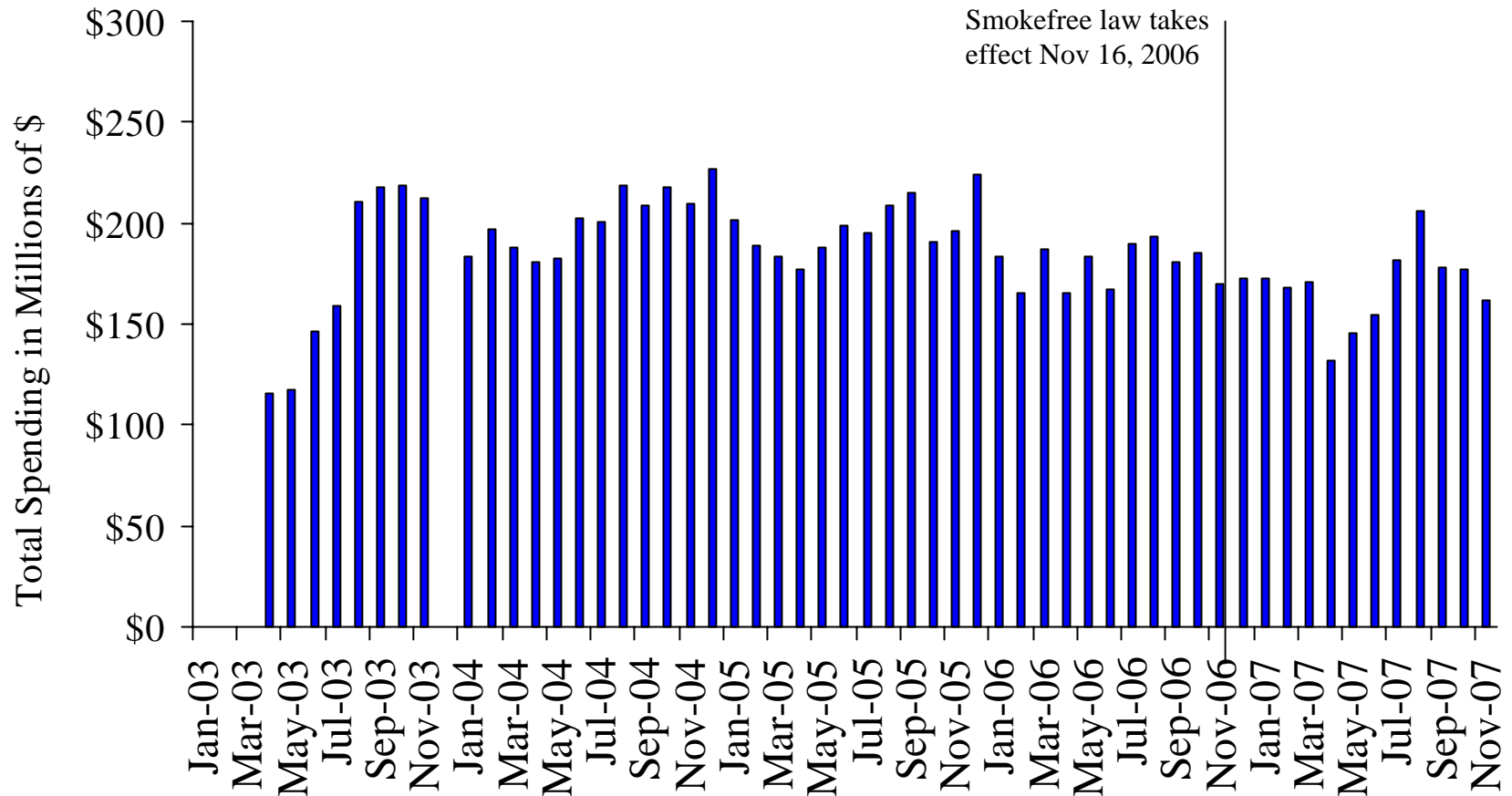
Average real monthly visitor spending in Hawaii after the law = \$1.018 billion



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism> .

(Adjusted to 2007 dollars using the Consumer Price Index for Hawaii)

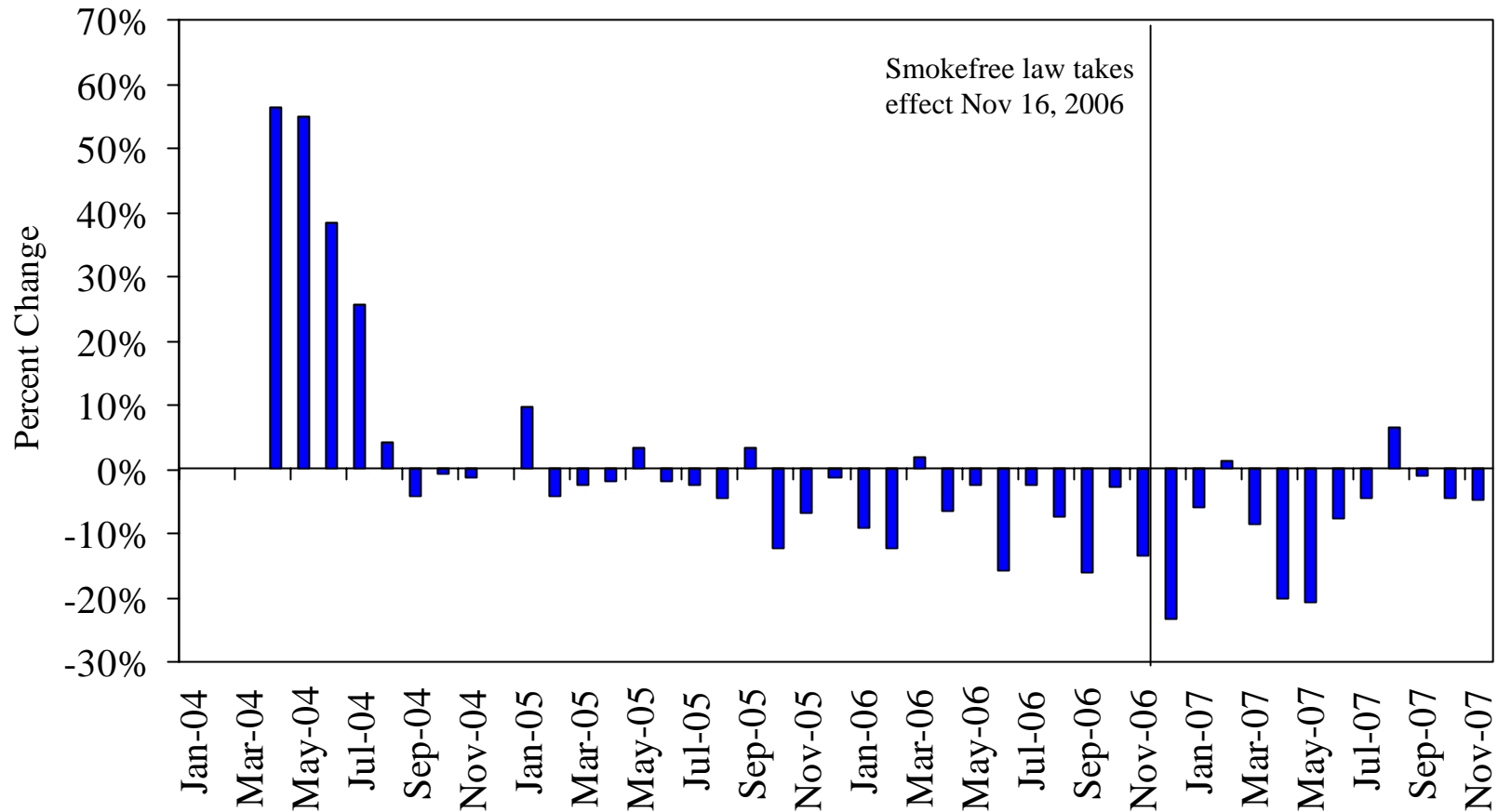
Figure 22. Total Real Monthly Spending by Visitors from Japan, January 2003 to November 2007



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism> .

(Adjusted to 2007 dollars using the Consumer Price Index for Hawaii)

Figure 23. Year-Over-Year Percent Change in the Total Real Monthly Spending per Visitor from Japan, January 2004 to November 2007

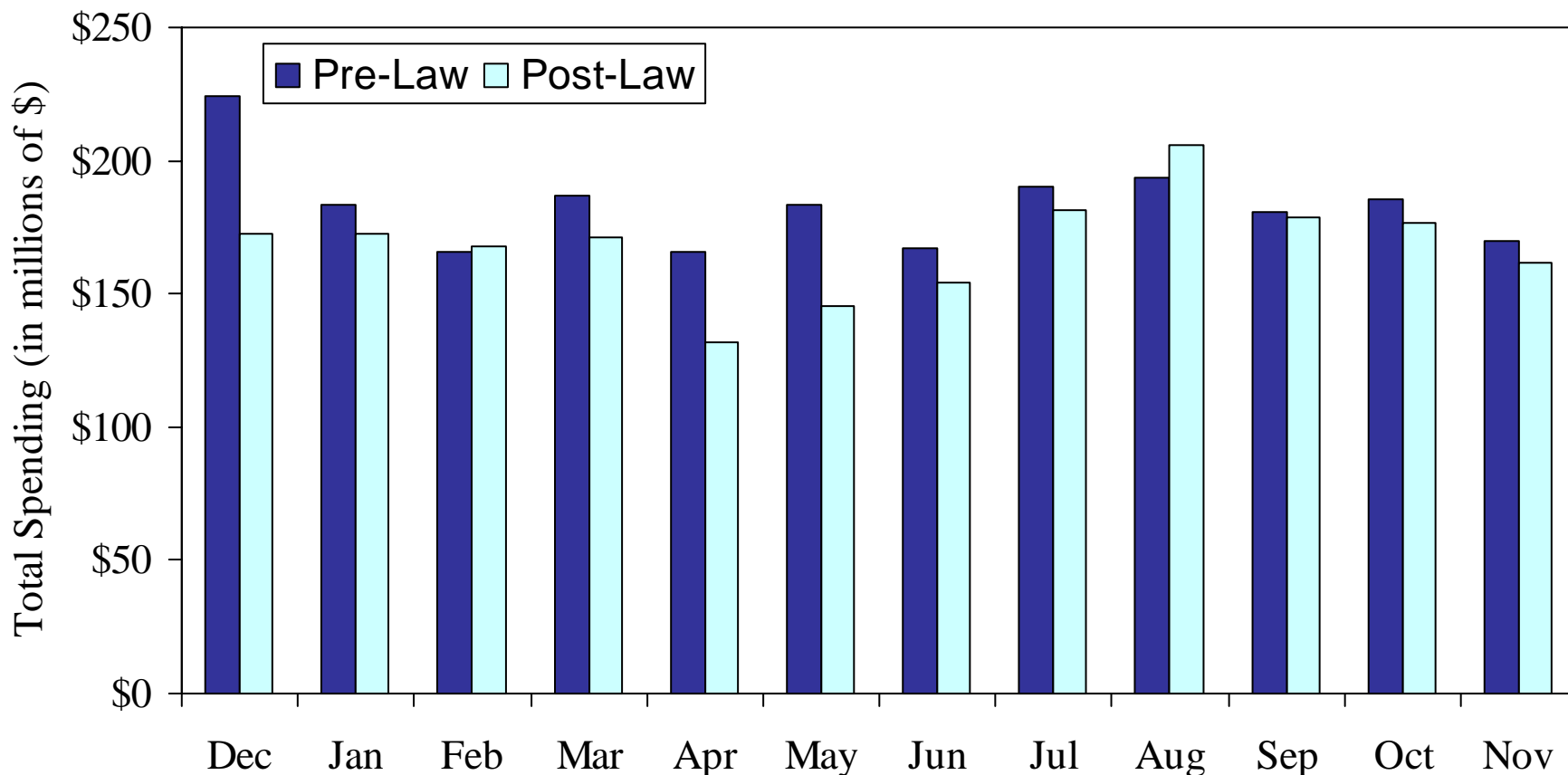


Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism>.

Figure 24. Total Monthly Japanese Visitor Spending by Month Before and After the Smokefree Law

Average real monthly visitor spending in Hawaii before the law = \$183 million

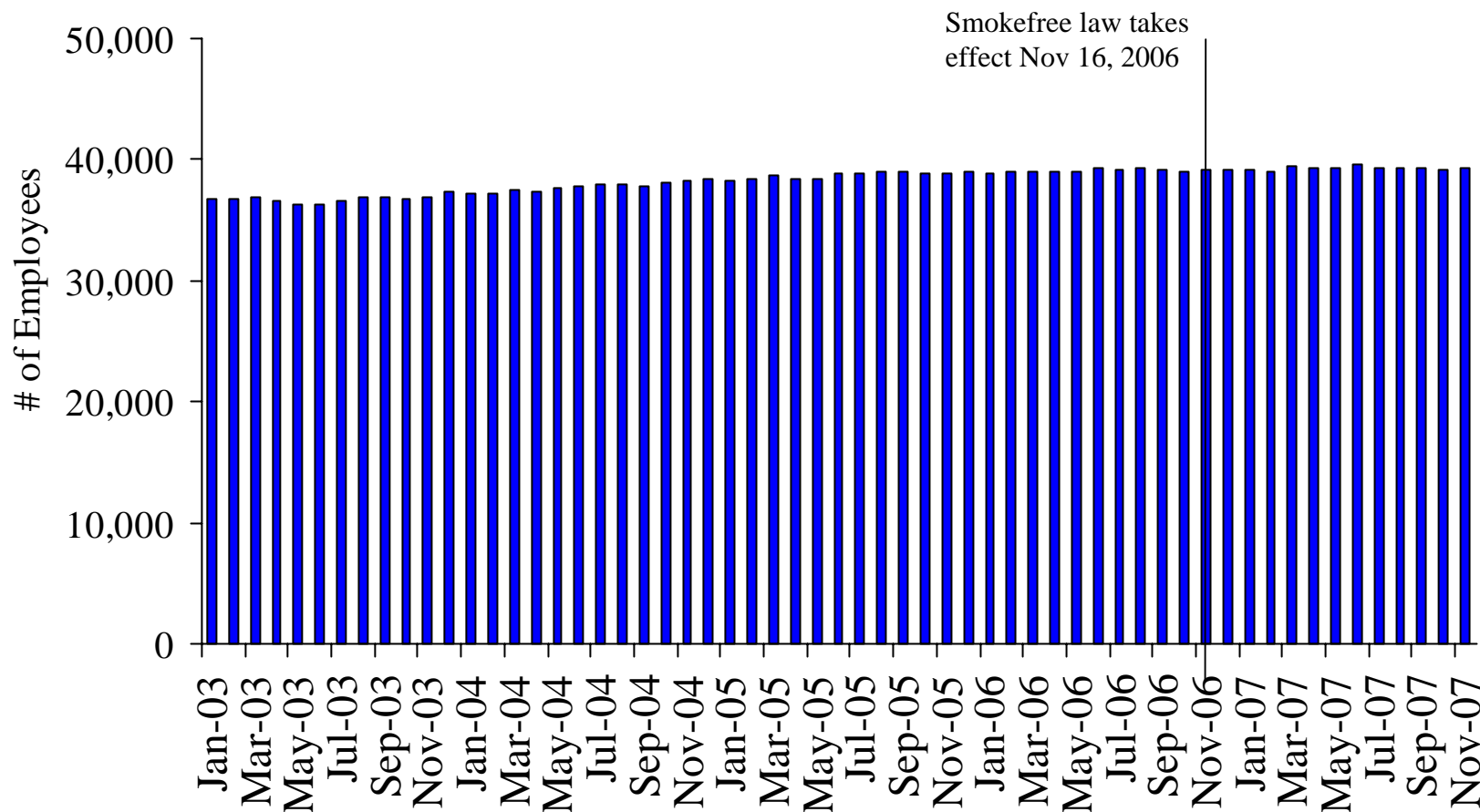
Average real monthly visitor spending in Hawaii after the law = \$168 million



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division. Monthly Visitor Statistics, Arrivals at a Glance. Accessed 1/9/08 from <http://www.hawaii.gov/dbedt/info/economic/visitor-stats/tourism> .

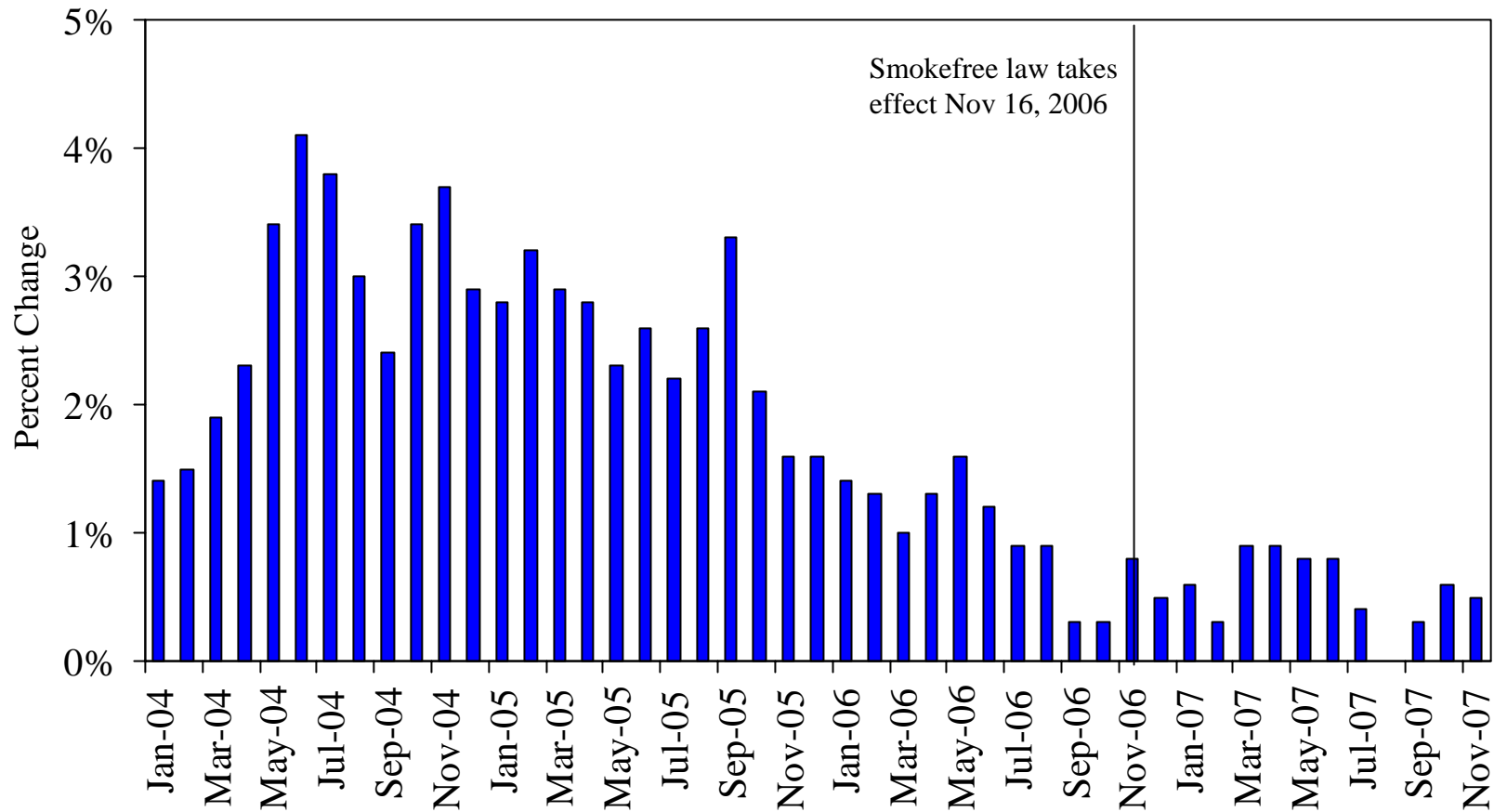
(Adjusted to 2007 dollars using the Consumer Price Index for Hawaii)

Figure 25. The Number of 'Accommodation' Employees in Hawaii, January 2003 to November 2007



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division (Original data from Hawaii Department of Labor & Industrial Relations and Hawaii Department of Taxation). Economic Data, Monthly Economic Indicators. Accessed 1/9/08 from http://www.hawaii.gov/dbedt/info/economic/data_reports/mei.

Figure 26. Year-Over-Year Percent Change in the Number of 'Accommodation' Employees in Hawaii, January 2004 to November 2007

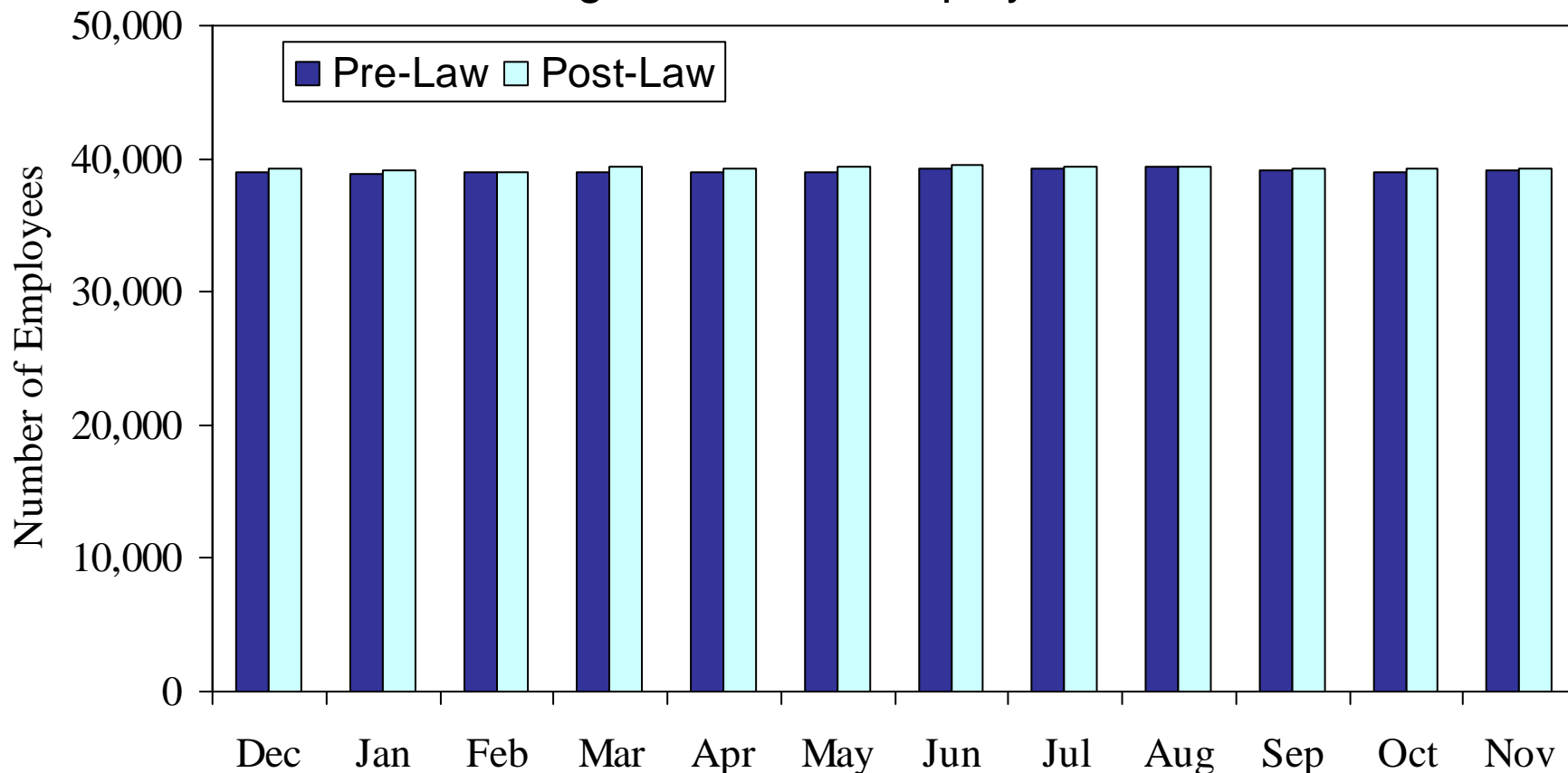


Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division (Original data from Hawaii Department of Labor & Industrial Relations and Hawaii Department of Taxation). Economic Data, Monthly Economic Indicators. Accessed 1/9/08 from http://www.hawaii.gov/dbedt/info/economic/data_reports/mei.

Figure 27. Total Monthly 'Accommodation' Employees in Hawaii by Month Before and After the Smokefree Law

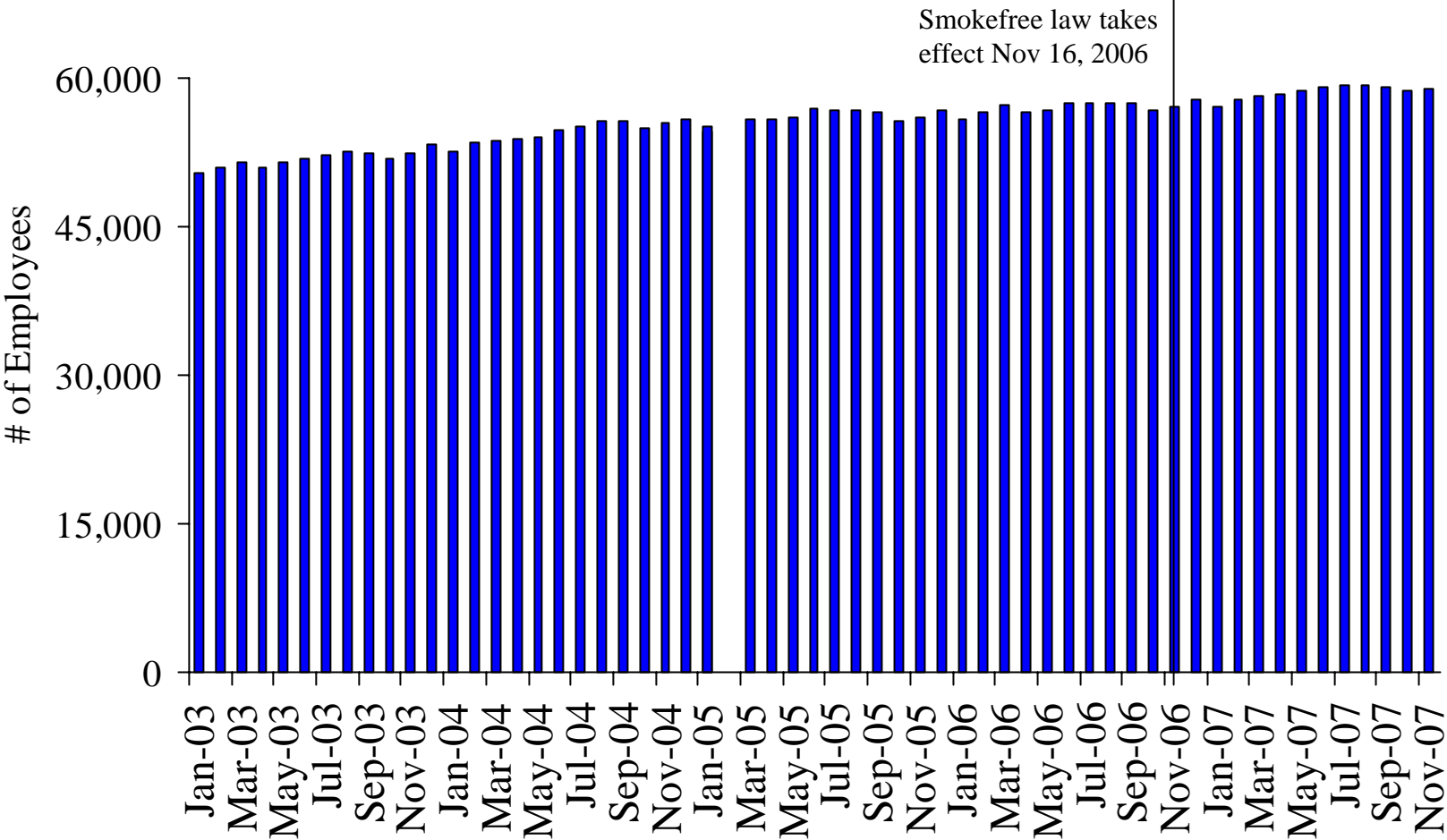
Pre-law average number of employees = 39,071

Post-law average number of employees = 39,283



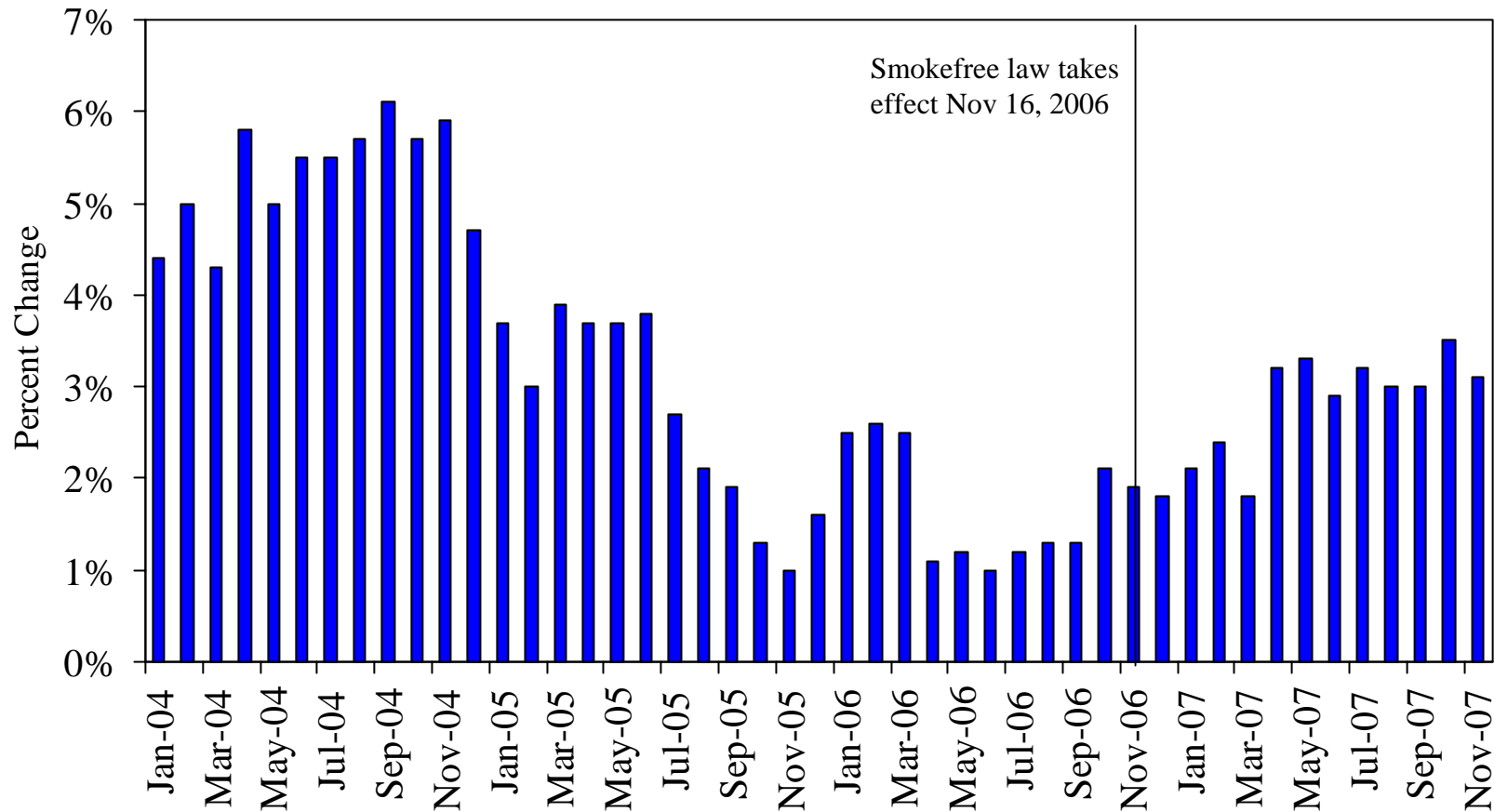
Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division (Original data from Hawaii Department of Labor & Industrial Relations and Hawaii Department of Taxation). Economic Data, Monthly Economic Indicators. Accessed 1/9/08 from http://www.hawaii.gov/dbedt/info/economic/data_reports/mei.

Figure 28. The Number of 'Food Services and Drinking Places' Employees in Hawaii, January 2003 to November 2007



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division (Original data from Hawaii Department of Labor & Industrial Relations and Hawaii Department of Taxation). Economic Data, Monthly Economic Indicators. Accessed 1/9/08 from http://www.hawaii.gov/dbedt/info/economic/data_reports/mei.

Figure 29. Year-Over-Year Percent Change in the Number of 'Food Services and Drinking Places' Employees in Hawaii, January 2004 to November 2007

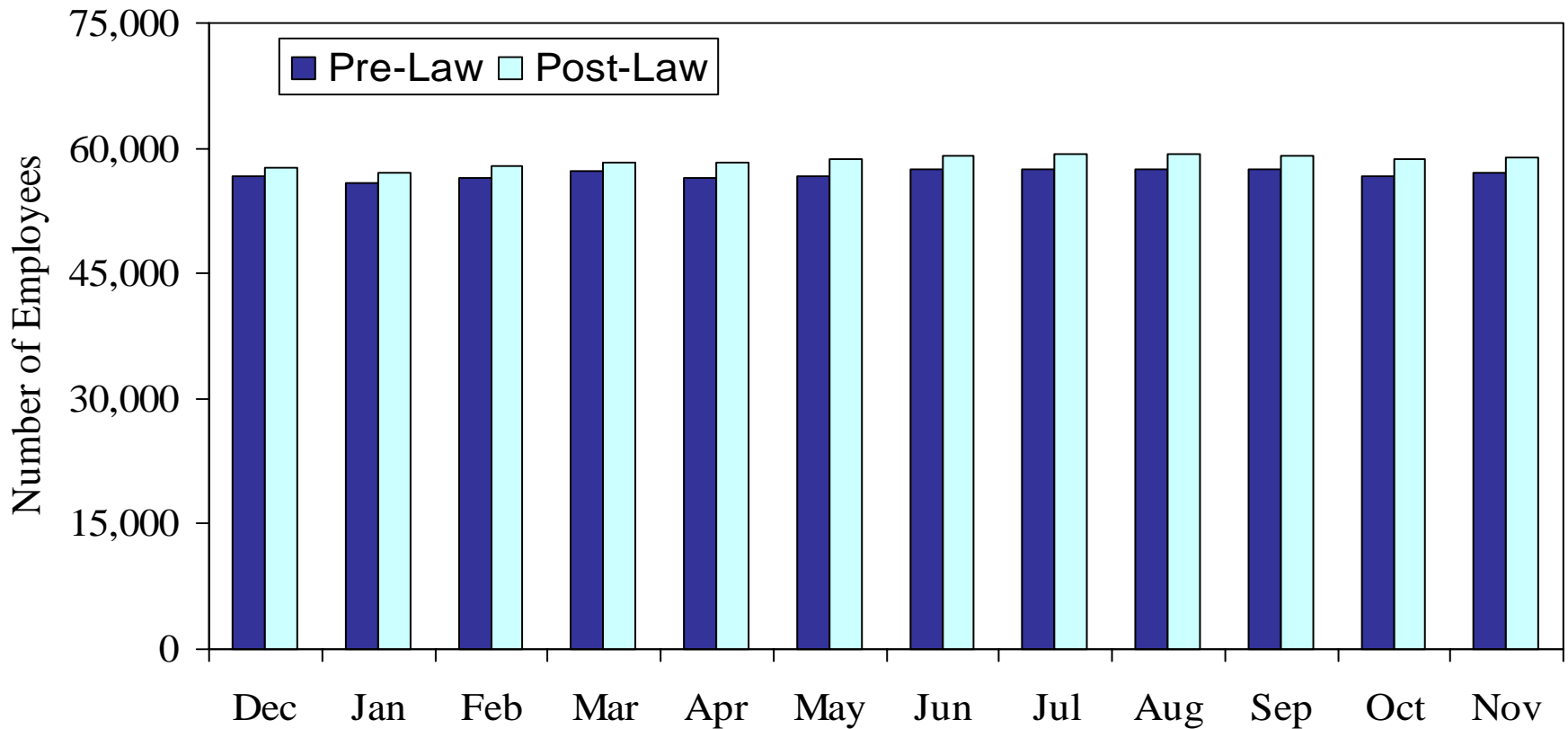


Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division (Original data from Hawaii Department of Labor & Industrial Relations and Hawaii Department of Taxation). Economic Data, Monthly Economic Indicators. Accessed 1/9/08 from http://www.hawaii.gov/dbedt/info/economic/data_reports/mei.

Figure 30. Total Monthly 'Food Services and Drinking Places' Employees in Hawaii by Month Before and After the Smokefree Law

Pre-law average number of employees = 56,938

Post-law average number of employees = 58,529



Source: Department of Business, Economic Development & Tourism -- Research and Economic Analysis Division (Original data from Hawaii Department of Labor & Industrial Relations and Hawaii Department of Taxation). Economic Data, Monthly Economic Indicators. Accessed 1/9/08 from http://www.hawaii.gov/dbedt/info/economic/data_reports/mei.