

**Review of Municipality of Anchorage
Chapter 16.65 – Prohibition of
Smoking in Public Places**

Prepared by



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Executive Summary

In July 2000 the Municipality of Anchorage (MOA) passed ordinance AO No. 2000-91(S) to establish the prohibition of smoking in public places and workplaces. As part of its passage, the Municipal Assembly required that the ordinance be reviewed during 2001. There are six aspects for the review that were listed in the ordinance:

1. Effectiveness of the continuing public education program and ongoing efforts to work with affected businesses and individuals
2. Effect on reducing secondhand smoke exposure
3. Practicality of enforcing the ordinance and any problems with enforcement
4. Number of violations and amount of penalties
5. Any needed revisions to the ordinance
6. Overall economic impact

The findings of the Research Team from the University of Alaska Anchorage are summarized as follows.

1. Effectiveness of the continuing public education program and ongoing efforts to work with affected businesses and individuals

The community wide effort of raising public awareness was conducted in collaboration with a number of public interest groups and through a variety of media. There was a direct mailing of information to every business license holder in the city. The awareness of businesses appears to be quite high in light of the number of citizen based complaints on lack of compliance to the ordinance.

2. Effect on reducing secondhand smoke exposure

While there was no way to quantify this reduction through pre and post air sampling tests, the number of facilities within the hospitality industry alone indicates that over 7,500 employees are no longer exposed to secondhand smoke while on the job. This number is larger if businesses in all industry types are considered. This also means patrons to these establishments are also no longer exposed to secondhand smoke.

3. Practicality of enforcing the ordinance and any problems with enforcement

There have been issues regarding some of the definitions and intentions within the ordinance. These appear to center on the equity of applying a Municipal tobacco smoking prohibition law through the use of full beverage dispensary licenses as provided by the State of Alaska.

4. Number of violations and amount of penalties

At the end of August 2001 there had been only one citation issued under this ordinance. It has been challenged and is awaiting a hearing. There has been no assessment of penalties.

5. Any needed revisions to the ordinance

The Research Team is recommending a number of revisions that deal with language clarification and making the application of the ordinance more specific for those charged with its enforcement. The Advisory Committee has provided thirteen suggestions that have been ordered to their level of support from the group. These also focus on language and process clarification.

6. Overall economic impact

The timing of the review has allowed for only a detailed assessment of one quarter of business specific economic data, and two quarters of composite industry specific information. The question that was critical for the Research Team to answer was: *Was there a significantly large, negative impact on the businesses that were required to move from allowing smoking to being non-smoking as a result of this ordinance?* There was no indication in the data that such an impact occurred.

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- Appendix A: Anchorage Municipal Code Chapter 16.65 Prohibition of Smoking in Public Places
- Appendix B: Research Plan for Review of Municipality of Anchorage Chapter 16.65 Prohibition of Smoking in Public Places
- Appendix C: Attempts to Collect Information for the Review
- Appendix D: Bibliography for Economic Impact Analysis
- Appendix E: Suggestions from the Advisory Committee on Needed Revisions to the Ordinance
- Appendix F: Suggestions from the UAA Research Team on Needed Revisions to the Ordinance
- Appendix G: Suggestions from the Department of Health and Human Services and Anchorage Police Department on Needed Revisions to the Ordinance

I. Overview

In July 2000 the Municipality of Anchorage (MOA) passed ordinance AO No. 2000-91(S) to establish the prohibition of smoking in public places and workplaces (see Appendix A). As part of its passage, the Municipal Assembly required that the ordinance be reviewed during 2001. This report has been prepared for consideration by the Health and Human Services Department (HHSD) and the Anchorage Police Department (APD). After their review, HHSD and APD are to make recommendations for any changes to the Mayor, the Health and Human Services Commission, and the Assembly. The University of Alaska Anchorage was contracted to conduct this review. The Institute for Circumpolar Health Studies (ICHS) is the lead organization, and the Institute for Social and Economic Research (ISER) is also engaged.

There are six aspects for the review that were listed in the ordinance:

1. Effectiveness of the continuing public education program and ongoing efforts to work with affected businesses and individuals.
2. Effect on reducing secondhand smoke exposure.
3. Practicality of enforcing the ordinance and any problems with enforcement.
4. Number of violations and amount of penalties.
5. Any needed revisions to the ordinance.
6. Overall economic impact.

ICHS met with the Municipality of Anchorage (MOA) Project Officer, Nancy Merriman, to discuss the scope of the research. Ms. Merriman has been kept apprised of all work and has supported all activities that have been agreed to for this review. This has been a Municipal project that they initiated to evaluate their ordinance.

In March, ICHS provided the Assembly with a work session summary of what was being proposed. At that presentation some of the limitations of the review were outlined. The key considerations were the amount of time available to collect data, and the limits of possible sources of data that could provide meaningful information for this review. ICHS was not charged to collect public opinion, but to technically review the ordinance.

ICHS requested an Advisory Committee for this evaluation and the Mayor appointed the group in April. A meeting was held on 18 April to foster discussion about their concerns and a research plan was developed. The Advisory Committee met on 30 May to review the evaluation plan and agree to the work (see Appendix B). Upon further investigation some aspects were found not to be practical and so were dropped, but no new components were added after the initial committee approval.

ICHS conducted key informant interviews with MOA staff members to quantify the six review aspects. These interviews took place on 22 August with the following individuals:

- Nancy Merriman, Manager of the Planning Office, H&HS
- Mark Mew, Deputy Chief of Police, APD
- Lura Morgan, Manager, Environmental Services Division, H&HS
- Chris Tofteberg, Supervisor Food Safety & Sanitation Program, H&HS

An interview was also conducted with Municipal Attorney William Greene on 15 October 2001.

ICHS obtained contact logs from the Municipality where citizens called in for either more information on the ordinance or to document a complaint since its implementation. The complaint and citation logs have been redacted of any personal or business identifiers. The logs were reviewed for numbers and the nature of the call as recorded in the notes. This information was then applied to both an understanding of the effectiveness of the public education efforts as well as the practicality of enforcement.

A summary of the interviews and other findings was presented to H&HS Director Jewel Jones on 29 August. This review included a summary of the approaches that were considered but that did not prove to be successful. These are listed in Appendix C. During this briefing a request was made for an additional interview with staff of the legal office of the Municipality. Director Jones arranged for an interview with the legal staff on 15 October.

Public data from the Department of Labor Statistics and various State licensing agencies have been compiled to provide an economic assessment by industry type. Establishments open to the public were called and asked if their current status was smoking, non-smoking, or if they restricted smoking to an area. This is a question that is public information and based on the decision of the business establishment. This summary was then used to sort the Department of Labor businesses for evaluation.

A literature search has been conducted for other studies on similar evaluations. A number of professional research articles on the impacts of restricting smoking in other communities have been secured and reviewed. A bibliography has been generated (see Appendix D) and copies of the articles are on file at the ICHS office. These articles represent studies that evaluated larger populations over longer time periods for health, consistent implementation and compliance, and economic impacts.

The Advisory Committee met on 26 September to hear a presentation on the Preliminary Draft report and to receive a review copy for their consideration. During this four-hour presentation, committee members were encouraged to ask questions about the work and the findings. On 3 October the Advisory Committee met for the fourth time. Each member was asked to bring to the meeting, or send in advance, suggestions for possible revisions to the ordinance. These were discussed at length and then voted on to determine which suggestions the group supported most. These are provided in Appendix E.

The full report will be completed and submitted to Nancy Merriman at the Municipality at the end of October 2001. Then it will be used by staff of the Health and Human Services Department (see Appendix G, available at a later date) and the Anchorage Police Department (see Appendix G, available at a later date) to conduct their review of the ordinance and to generate suggested revisions. The report will then be forwarded to the Mayor's office. Finally, the Municipality will take the findings and revisions to the Health and Human Services Commission and the Anchorage Assembly for their action.

II. Results

A. Attempts to Collect Information for the Review

At the suggestion of the Advisory Committee, and from the professional backgrounds of the Research Team and the Municipal staff, a number of approaches were considered for the review of this ordinance. Before addressing each of the specific aspects of the Review it is necessary to state what was considered and why some of these approaches were not conducted or did not succeed.

While many of these ideas had merit and could have contributed to the overall review of the ordinance, there were some problems with using them. Some were restricted due to the time frame under which this review was being conducted. Others lacked a control or comparison to determine what was occurring before and after the ordinance. A few were not attempted since we could not get permission to replicate a previous effort. Still others were not attempted because the association was unclear about what could be measured in comparison to some specific impact that this ordinance may have had to a business.

All of the ideas that were considered, but found not to be successful, are listed in Appendix C.

B. Information Collected for the Review

1. Effectiveness of the continuing public education program and ongoing efforts to work with affected businesses and individuals

"Education and compliance are more important than enforcement on this type of ordinance." Mark Mew, APD

The Municipal Health and Human Services Department initiated meetings to discuss the pending implementation of the Smoking Prohibition Ordinance in the early fall of 2000. Representatives from a number of sectors within the Municipality were called together to map out a process. A means to provide consistent information to the public was devised as well as a means to log the types of inquiries that were being made for information on the ordinance.

A number of proactive educational tools were applied that worked with community groups, public and private media, and utilized existing professional staff within the Municipality. These efforts started during the summer and community groups took an active role in promoting the ordinance for the public. Staff of the Municipality participated in numerous public forums to raise the awareness of the ordinance and what it would mean for Anchorage businesses and citizens.

The Smokefree Anchorage Coalition worked collaboratively with the Municipality to provide this public education during the second half of 2000. Together they formed the Smokefree Anchorage Workgroup. The following is a listing of the activities that the Smokefree Anchorage Workgroup led.

Date	Activities of the Smokefree Anchorage Workgroup
July 2000	Initial contact with Workgroup's co-chairs and potential members. One of the co-chairs was a supportive Assembly Member.
July-August	Researched five states with similar ordinances to determine best practices for providing education and implementation.
July-Dec.	Business Outreach to over 100 organizations/establishments via telephone, one-on-one, newsletters, and presentations. Forty-four establishments with over 18,000 employees were contacted. The Smokefree Anchorage Coalition provided paycheck stuffers, newsletters, technical assistance, and cessation resources.
August	Formation of the Smokefree Anchorage Workgroup
September	Development of educational brochure targeting the business community
Sept.-Oct.	UAA student nurses surveyed over 150 community members and 23 businesses and developed and distributed educational materials to those establishments
October	Technical Assistance telephone number was made public: 343-4141 option 3 (over 300 calls were received requesting information)
	Development of web site: www.smokefreeanchorage.ak.org
	Development of "The Air Clears on December 31, 2000" poster
	Mailing to 1,500 facilities permitted by the MOA Health and Human Services Department (including poster)
Oct.-Dec.	Three Smokefree Anchorage Workgroup meetings held to brief workgroup, discuss needs, and obtain feedback
November	Mailing to 19,620 business license holders (miniature poster with web site and phone number included)
	Meeting with the Anchorage Business Alliance/CHARR
	Meeting with the Anchorage Daily News Editorial Board

Nov.-Dec.	Three open houses providing information and technical assistance to the business community and the public
	Four half page Anchorage Daily News informational ads were designed and printed
	Radio ad developed and aired 11/23/00-12/31/00
	Theater slide developed and run until 12/31/00
	Three local radio and TV talk shows
December	TV ad developed and aired 12/11/00-12/31/00

Prior to 1 January 2001 (the date of implementation), every business in the city (19,620) was sent direct mail information on the ordinance.

As of 22 August 2001, there were 353 calls logged by Municipal staff. These calls had to deal with information, clarification, or complaints about the ordinance.

As of 22 August 2001, there were a total of 139 valid complaints investigated since implementation.

As of 22 August each first call of complaint about an establishment resulted in the sending of a "first letter" with additional information on the public health issues and reasons for the ordinance. About 100 letters were sent.

As of 22 August each second or subsequent call of complaint about an establishment resulted in the sending of a "second letter" with a packet of information. Twenty letters were sent. Any complaint about a business not permitted by the Health and Human Services Department was followed by letters and packets of information. After a third complaint, they were referred to the Anchorage Police Department.

As of 22 August the Municipal Health and Human Services Department had issued only one citation under the ordinance, and that was to a business that stated it was planning to challenge an equity issue within the ordinance.

As of 22 August the Anchorage Police Department had not issued any citations under the ordinance, albeit two cases were under investigation.

The Smoking Ordinance Contact Log that was kept by the MOA Health and Human Services Department, Environmental Services Division employees during the last quarter of 2000 was reviewed for the content of each call. From 112 records with written notes, 94 were about the classification of businesses, about which had to comply with the ordinance, or about information on how they should comply. The next highest groupings among the 112 were seven calls on ventilation system

requirements, five calls for inspections, and three about license types. Overall, the calls focused on businesses gaining information so they could adequately and appropriately comply with the ordinance.

The Health and Human Services Department instituted a new category in the Municipal on-line complaint system for the smoking ordinance as of 1 January 2001. The Environmental Services Division customer service representatives were trained to record complaints that had to deal with citizen observations of perceived non-compliance with the ordinance. These became the base for sending out compliance information letters, site visits, and if necessary, leading to citation under the ordinance. From those records, 137 had sufficient written notes to classify, and 80 were about businesses that continued to allow smoking. It was found that some of these businesses were allowed to have smoking. Those that were not permitted smoking were sent the "first letter" of compliance information. If there was a subsequent complaint about the same business then the "second letter" of compliance was sent. The next highest groupings were 36 calls about drifting smoke, and 15 about people smoking too near businesses.

It is interesting to note that, over time, the nature of calls received by Health and Human Services staff has changed. During the fall of 2000 the predominant nature of the calls was about understanding which business types had to comply and what actions they needed to take. With the implementation of the ordinance, the nature of calls shifted from business inquiries for information to citizen complaints. In January and February the predominant nature of the calls was about people still smoking in establishments. By spring, the calls had a larger percentage of complaints about the drifting of smoke from outdoor or smoking sections into enclosed non-smoking public areas.

From October 2000 to mid-August, the number of calls centered on the months of December (85) and January (98). This was expected since the ordinance was passed in July, telephone log records began in October, and implementation was on 31 December 2000. For March, April, and May the number of calls per month had dropped and stayed below twenty, and for June, July, and August the number was consistently below 5 per month.

In summary, the enforcement of this ordinance is based on citizen complaints. Very little direct enforcement by MOA staff has been required in light of the number of businesses involved. One year after the passage of the ordinance to prohibit smoking in public places, it appears that there is virtually 100% compliance. Therefore, the effectiveness of the public health education campaign, in working with the impacted businesses, appears to be a complete success.

It is important to note that there is a significant difference among "complaint," "compliance," and "enforcement" actions. The absence of complaints does not necessarily imply uniform or widespread compliance. There is likely high compliance in "public" establishments where customers are most likely to spend time, observe,

and complain if the business are not following the ordinance. In establishments that have little contact with the public, are small, or where all employees may agree to continue to allow smoking then, even though there are no complaints, there may not be compliance.

In order for this ordinance to function, there needs to be a citizen complaint that is appropriately registered with the Municipality. That complaint is then investigated for compliance and whether the establishment may be legally allowed to permit smoking. The Municipality has taken the approach of fostering education for increased compliance. Only in one situation thus far has an enforcement action taken place. Therefore, the data that are available indicate broad compliance with little need of enforcement. However, this is solely based on a small number of citizen complaints in light of the total number of businesses.

While the proactive education of businesses has been very positive, it must be taken in perspective. The implementation of the ordinance is new. Public education may need to continue in order to maintain compliance. After a few years, in other states, the level of compliance to similar smoking prohibition laws has decreased. In these other states there has been limited funding for tracking compliance. In some areas citizens are now taking it upon themselves to take the offending businesses to small claims court for each smoking complaint since they have received no support for enforcement from local government.

In addition, this review has taken place during a mild winter, and a warm spring and summer. The weather has been conducive to smoking out of doors. As colder and more inclement weather approaches in the fall and winter, there may be more complaints about both entrained smoke as well as for smoking in facilities.

Finally, the Health and Human Services Department is charged with a "continuing program to explain and clarify the purposes and requirements of this chapter to the citizens affected by it and to guide owners, operators and managers in their compliance with it." There has previously been great collaboration with public health interest groups. It is anticipated that such efforts will continue in an ongoing fashion.

2. Effect on reducing secondhand smoke exposure

In July 2000, at the time of the passage of the ordinance, there were an estimated 19,600 businesses in Anchorage that may have allowed smoking, depending on building restrictions and individual proprietor decisions.

As of 22 August 2001, 17 food and beverage establishments met the legal requirement and voluntarily submitted letters to the Municipality to allow smoking in their facilities.

As of 22 August 2001, 55 food and beverage establishments have designated smoking areas within their facilities based on a review of their industry types and a telephone survey.

An unknown number of businesses have fewer than four employees and therefore are not regulated under this ordinance. There are also other exemptions for some business such as retail tobacco stores.

As of 22 August 2001, it is therefore roughly assumed that about 15,000 businesses in Anchorage provide smoke free facilities.

Of the detailed assessment that this review provides, we know that there were 218 full service restaurants where smoking was eliminated for 4,360 employees; 12 major fast food companies at 70 locations where smoking was eliminated for 2,755 employees; and 59 limited service eating places where smoking was eliminated for 453 employees. This means that a total of 7,568 employees are no longer exposed to secondhand smoke at 437 locations in Anchorage just in this one sector of business in the city.

In summary, the compliance with this ordinance removes workers and patrons from secondhand smoke. An estimated 19,600 businesses have been informed about the requirements of this ordinance. Therefore, there has been a significant reduction to the public and non-smoking workforce to secondhand tobacco smoke through the implementation of this ordinance. While there is no proof of full compliance, there are no strong indications through citizen complaints to the contrary.

Next year, the data from the Alaska Behavioral Risk Factor Survey for 2001 will be available. The Municipal Health and Human Service Department will make a comparison of 2000 data to 2001 data on secondhand smoke exposure for a follow-up report to the Assembly.

It is noted that in the review of the citizen complaint records there appears to be a shift in the type of concerns being reported. During the early months of the year the calls were predominated by specific concerns about people smoking in particular establishments that were perceived by the public to fall within the non-smoking prohibition. In later months there were more frequent calls about the movement of secondhand smoke. The noses of citizens are actively conducting the assessment of the "filtering" or "entering" of smoke into non-smoking areas, or what is a "reasonable distance" from entrances to public buildings. It appears that the percentage of calls about the "air quality" aspects of the ordinance is growing.

Although the overall numbers appear very positive, there continue to be concerns over the movement of smoke from designated areas to prohibited areas. The issue of the entrainment of smoke into buildings from those standing outside and what is a "reasonable distance" from a building will need clarification. There appears to be a growing debate about how much "smoke" should be cause for a complaint. A citizen

may complain whenever they smell tobacco smoke in a public building. Clarifying the source may be a challenge to MOA staff who are not trained ventilation technicians, and eliminating the cause may not be practical under the current structure of the ordinance.

3. Practicality of enforcing the ordinance and any problems with enforcement

The most frequently cited challenge to the enforcement of the ordinance was that definitions need to be clarified. The terms that need clarification include:

- Private residence, private function
- Public place, common areas
- Twenty-five percent of hotel and motel rooms rented to guests
- Reasonable distance
- Tobacco smoke cannot filter into any other area
- Ensure that tobacco smoke does not enter the area
- Enclosed space
- Bar
- Bowling facilities and pool halls
- Bingo halls and pull tab establishments (with internal smoking space when other businesses cannot have internal smoking areas)

Other terms that caused concern related to the review of the ordinance, including those from the language of the instructions. The terms that could have used additional clarification include:

- Effectiveness of the continuing public education program:
- Effect on reducing secondhand smoke exposure
- Practicality of enforcing
- Overall economic impact

In addition, the action of how enforcement is initiated is not clear.

It was also noted that there was a lack of any MOA master list of businesses where smoking may not be regulated, and to what level smoking may be allowed. As of 22 August, the list of 17 businesses that have identified themselves as "bars" under the ordinance has been checked and confirmed for all of the appropriate licenses. However, that does not mean all "legal smoking" establishments have voluntarily requested to be listed through the submission of a letter to the MOA. What this means is the MOA does not know with certainty which businesses should have a complete prohibition on smoking, and which may allow smoking under this ordinance. Compliance is based entirely on complaints filed by citizens and subsequent investigation by municipal staff.

Another aspect of the definitions was the misinformation about what was really in the ordinance. This included multiple interpretations of the ordinance's "legalese." While

the public and public servants were attempting to learn to work under the new ordinance there were changes in legal interpretations, as well as the need for further refinement of definitions. This led to confusion. Prime examples were concerns over the limitations for ventilation systems and the ability to have interior non-smoking enclosures in smoking establishments.

Another cited deficiency was that the process to develop the ordinance had not included Municipal staff who would later be charged with its implementation or interpretation. The feeling was that if those who are most familiar with the issues involved had been engaged early in the process, then the structure and wording of the ordinance would have been more clear. None of the Municipal staff interviewed for this report was engaged in the development of the ordinance's language.

Through the Research Team's search for related materials we found a draft ordinance on a web site for the Americans for Nonsmoker's Rights. Upon review, it was found to be virtually identical to the 13 June 2000 ordinance language that was submitted by Assembly members Teshe, Abney, Taylor, Tremaine, and Von Gemmingen. Although this "Model Ordinance Eliminating Smoking in Workplaces and Public Places (100% Smokefree)" was very likely the source for the current Municipal law, it did not receive the same type of internal review and development as other ordinances.

Those interviewed commented on not having been involved in the development of the ordinance for the Municipality. A standard practice for ordinance development is the production of the Summary of Economic Effect that outlines the anticipated costs to both the Municipality and the public. This document was not prepared for this ordinance, making subsequent evaluation of its overall economic impact less responsive or specific.

It is suggested that the data from Health and Human Service Department Environmental Services inspection reports be reviewed on an annual basis for the number of observations of businesses not in compliance with the smoking prohibition ordinance. This information is not part of the regular inspection form, but staff has been requested to note issues of non-compliance on supplemental sheets that are often utilized. In addition, these findings should be compared with the continuing collection of citizen complaints about smoking in public places.

It has been suggested that the Fire Marshal be requested to incorporate the criteria of this ordinance within regular business inspections. This aspect would include checking for appropriate signage, the existence of smoking paraphernalia, and a review of the business' written smoking policy.

There are some unrealistic expectations for this ordinance. One example is the removal of "all ashtrays and other smoking paraphernalia." This appears straightforward, but when it comes to built-in ashtrays that are parts of buildings or vehicles this can be an expense. The ordinance states that employers are not required to incur any expense to make physical modifications to comply. It appears

that built-in ashtrays are exempt under the ordinance, as their removal would cost money. However, the clarity of this message was delayed in being made public, contributing to mixed messages and confusion.

All businesses should now have modified their policies to reflect the prohibition of smoking at their facilities. While no cost was to be incurred, this work should be done. It is unknown how often businesses update and revise their policies. There is currently no practical way to check on this level of compliance. It is anticipated that this did not receive a high priority with business owners or managers. There is no way to assess if the new smoking policies were communicated to all employees within three weeks of its adoption that was required to occur prior to 21 January 2001.

Equity in the application of the ordinance was mentioned as a concern to implementation. The use of a separate system that provides licenses for the selling of particular alcoholic beverages has been adopted as the benchmark for tobacco use. There is concern about this process and if this creates a "level playing field" for all businesses, be they new or old.

In addition, a broader equity concern is that businesses that are regularly inspected by the Health and Human Services Department potentially can be assessed for compliance more frequently than other types of establishments. While this is the nature of facilities that are considered important to overall public health, there should be considered some means to regularly assess the majority of businesses that have been affected by this ordinance. This concern may be addressed by having the Fire Marshal take on this expanded role.

The inequitable application of the ordinance to some sub-populations in the community has also been raised. One of these populations is 19 and 20 year olds. People in this age group may legally purchase tobacco products and smoke, albeit they are limited in where they can do this in public. The only public establishments regularly available to smokers are only open to those over 21 years due to the liquor license requirement. These young people can rent one of the 25% of hotel rooms or attend a private function that allows smoking at a hotel. In general though, this group has greater limitations on their ability to consume tobacco products. The motion to adopt this ordinance states that it is to protect the public from secondhand smoke. This ordinance addresses this goal; however, the ordinance structure works to limit where these young people may legally smoke.

Another sub-population raising questions is the adult non-alcohol consumer, or the adults who desire to consume non-hard liquor in adult establishments but desire to smoke. This equity issue appears to be central to the one citation that has been issued and the pending hearings on this point.

There were new policies developed to implement this ordinance. The Health and Human Services Department Environmental Services Division provided training for their staff as well as for Police officers on basic interpretation of the ordinance and

basic implementation. This was complicated by multiple interpretations of the "legalese" of the ordinance. Definitions used, and the process for exemption, need to be very clear for ease of implementation and the practicality of enforcement.

Key informant interviews with Health and Human Services and Anchorage Police Department staff resulted in numerous comments about the need for legal interpretations of the wording in the ordinance. In light of these comments a request was made to schedule an interview with staff of the legal office of the Municipality. Director Jones arranged for an interview with the legal staff to attempt to clarify some of the above stated issues.

The Municipal Attorney felt that this ordinance has taken more of his staff's time than other similar documents. This was due to the definitions of terms used, the nature and types of exemptions, and the structure of the ordinance. His interpretation of the ordinance matched the concerns of the terms that had been questioned by others who were interviewed.

The practicality of the enforcement of the ordinance is closely linked to legal interpretations. Staff members need to have consistent training and support for their actions, as well as for educating the public as to the nature of the ordinance. Without the ability to go into further detail with those who provide legal interpretations on this ordinance, it was not possible to fully assess the hurdles the Municipality may have faced or will be facing in its implementation.

There are no standards to assess the movement of smoke. The Health and Human Services staff has devised a "smoke-test" used during inspections. There is no formal ventilation test for either smoke drifting during regular business or entrainment of smoke from outside the building. There are also no recommendations for a "reasonable distance" from the doors.

The people providing site visits for the Municipality, be they from the Health or Police Department, are not ventilation experts. With some facilities being allowed to have smoking areas adjacent to non-smoking areas there are bound to be different opinions as to how much smoke drift is too much. The movement of smoke may become a larger problem as cold weather causes outdoor smokers to move closer to the entrances of buildings, or causes ventilation systems to modify the mix of air. There is interest in having some means for those who must assess the level of smoke to have a guideline or process upon which to base their actions.

Creative MOA staff has come up with a simple test to monitor the movement of smoke by using some burning incense. This is done during a standard health inspection or for following up on a complaint. It does not fully assess the total air movement during peak business hours, but provides some indication of the general drift of smoke.

Nowhere in the ordinance are parameters to quantify the movement or dispersion of tobacco smoke listed. This is of particular concern in establishments that have both

smoking and non-smoking requirements, including hotels with smoking rooms and required smoke-free adjacent public hallways. In the case of an enforcement question, it may be necessary to have such measurable factors.

In addition, to date there are no means to support investigations into quantifying the movement of tobacco smoke. That is, in the event of a complaint, there is no structure or staff within the Municipality to assess and measure the accuracy of the citizen's perception of smoke. So, while there may be a complaint, there appears to be no means to prove guilt through the measurement of the physical movement of tobacco smoke.

Although there is a section in the ordinance that provides for the rights of employees to complain about working in a smoke filled environment, there is no mention of the process one has to go through to make such a complaint. Upon investigation it was learned that the Alaska State Department of Labor will deal with the compliance of this ordinance as it does with other workplace safety and health concerns. The worker would have to contact the State Compliance office within the Department of Labor.

In summary, the meanings of terms used, the means to assess the levels of compliance in all businesses, and the mechanism to determine the amount of tobacco smoke in the air are critical to the practicality of this ordinance. These were not clear at implementation and remain in question at this time.

4. Number of violations and amount of penalties

The Health and Human Services Department has issued only one citation. The Anchorage Police Department has issued none. The one citation has been appealed and is awaiting a hearing.

There have been no penalties assessed as of 22 August 2001.

5. Any needed revisions to the ordinance

This section was completed by a number of groups. The recommendations for each is listed in a separate appendix:

- Appendix E - Advisory Committee
- Appendix F - Research Team from UAA
- Appendix G - Health and Human Services Staff
- Appendix H - Anchorage Police Department

The Mayor is responsible for reporting to the Assembly and the Health and Human Service Commission on the review of this ordinance.

6. Overall economic impact

Public relations have taken time and resources, but this has been essential for voluntary compliance. This was not budgeted for the Health and Human Service Department or for the Anchorage Police Department. Therefore, there has been a cost to the Municipality for the implementation of the ordinance. It appears the most time staff has spent on this work has been in educating the public about the ordinance and, since implementation, in responding to citizen complaints about smoking in public places. Although this effort is required under the ordinance to be continuing, it will have to be budgeted for future years.

The Municipal Attorney's office commented that this ordinance has taken more of his staff time in interpretation than others. This is due to the need for a number of legal interpretations of terms that were not well defined or clear in the original language. It was felt that more time is being required for the legal responses because the ordinance was not developed in a way that fully engaged the Municipal staff.

It was also noted that the Summary of Economic Effect report was not completed for this ordinance. This report is usually produced as a Municipal ordinance is moved forward for Assembly consideration. Without this report, the Research Team was unable to compare what costs were expected for the implementation of the ordinance. In addition, the lack of the Summary of Economic Effect report, which is usually produced when an ordinance is moved forward for consideration, has left a gap in the Municipal assessment of what its proposed costs might have been. Its presence would have assisted in targeting the assessment of the overall economic impact to the public.

The American Lung Association produced a list of smoke free restaurants in Anchorage in 1999. This guide was used to revisit smoking policies under the ordinance and provide an indication of a potential sub-set of businesses that the Research Team would assess if trends in economic growth had indicated the need for a greater review. In addition, the list of community education efforts about this ordinance that were provided by non-profit, non-governmental organizations was significant. The cost of this public relations effort has not been assessed.

There has been no attempt to assess the economic impact of possible reductions in sick leave time or the improvement of future health in employees because there were no measures that would indicate these changes during the duration of this review. It may be possible to assess these economic factors in the future, if there were some standardized measures that were regularly collected. Without an agreed upon evaluation strategy it is unlikely that such information will be available in the future.

Alaska State Corporate Income Tax figures for 2001 will be available from the Alaska Department of Revenue after July 2002. Therefore, the data needed to measure the impact on income would not be available for more than a year. This may be considered a future source of information for evaluating the overall economic impact.

The following materials were prepared by the Institute for Social and Economic Research.

III. Economic Impact of the Anchorage Smoking Ordinance

One part of the evaluation of the Anchorage smoking ordinance is an assessment of the “overall economic impact.” Major preliminary findings are the following:

- Based on Alaska Department of Labor estimates of employment for the first seven months of 2001, there was no detectable impact on total employment in the Anchorage hospitality industry *as a whole* after the smoking ban took effect.¹
- Based on employment data for individual establishments for the first quarter of 2001, some types of establishments within the hospitality industry in Anchorage *may* have grown faster than other types after the smoking ban took effect.

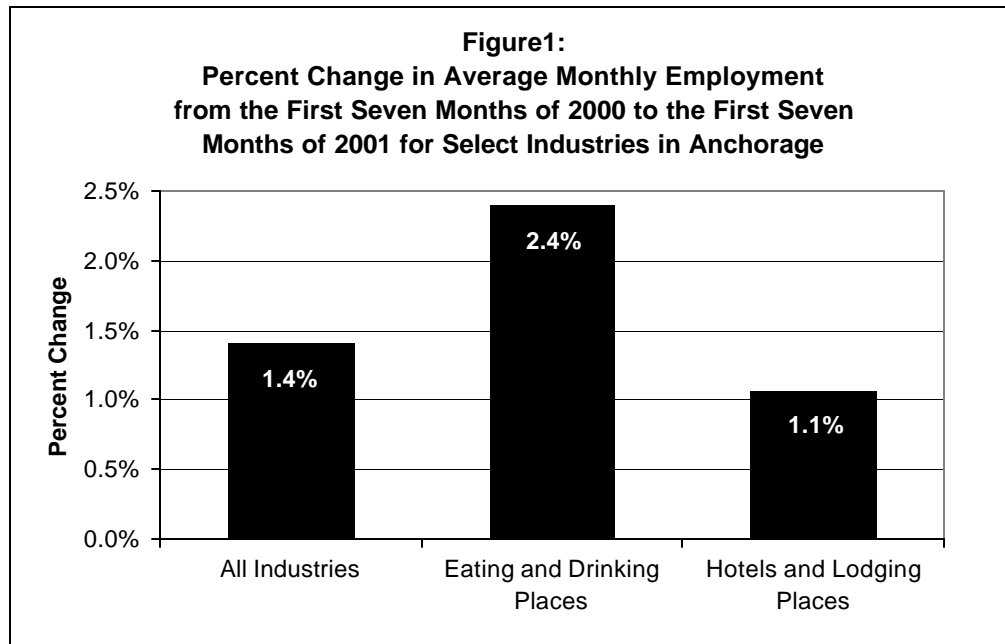
These are preliminary findings of the direct short-term effects of the smoking ordinance on local businesses. Due to likely seasonal fluctuations during the summer tourist season, continued adaptations by businesses, employees, and customers, and the likelihood of broader, indirect economic impacts, these findings do not encompass the full, long-term economic impacts of the ordinance.

A. Impact on Total Employment for Whole Industries

As shown in Figure 1 (next page), during the first seven months of 2001, total employment for all industries in the Anchorage economy grew at an annual rate of 1.4% relative to the first seven months of 2000. During the same period, total employment in all “Eating and Drinking Places” grew at the annual rate of 2.4%.²

The eating and drinking industry continues to grow at a faster rate than the Anchorage economy. This pattern of growth is typical of the last few years. On average, over the past six years employment in the eating and drinking industry has grown about one-half percent faster than the economy as a whole.³

Because the hospitality industry continues to grow at a historically typical rate, the employment data *do not* support the claim that the smoking ban had an impact on total employment in the eating and drinking industry as a whole. Furthermore, based on results from statistical regressions, the smoking ban had no statistically significant impact on total employment for the eating and drinking industry, *as a whole*, during the first seven months of 2001.⁴



Source: Employment figures are from the Alaska Department of Labor web page at <http://www.labor.state.ak.us/research/region/anc.htm>. ISER adjusted these employment figures to remove new employment generated by the 2001 Special Olympics World Winter Games held in Anchorage during March 2001. These Special Olympics impact estimates come from an ISER survey of Special Olympics visitors and Special Olympics Game Organizing Committee records.

The annual growth rate of employment in “Hotels and Lodging Places” was 1.1% during the first seven months of 2001. The growth rate of employment in hotels and motels is so highly variable across years and seasons, that we cannot draw meaningful conclusions from the limited data.⁵

Keep in mind that these calculations rely on seven months of *estimated* employment data that the Alaska Department of Labor may revise. In addition, the growth rates for most industries in Anchorage are substantially different for the first and second quarters of 2001.⁶ The best use of available data is to calculate the average growth rate for the entire first half, but keep in mind that there are substantial seasonal fluctuations. We would need at least one year of data to control for the effects of these seasonal variations.

These findings are consistent with previous studies that use sales tax to measure changes in the eating and drinking industry in other areas that have enacted smoking bans.⁷ These earlier studies have consistently found that smoking bans do not have a detectable effect on total sales tax revenues in the eating and drinking industry as a whole. These studies have refuted the claim that there was a large negative impact on all eating and drinking places, as reported in other studies of smoking bans.⁸

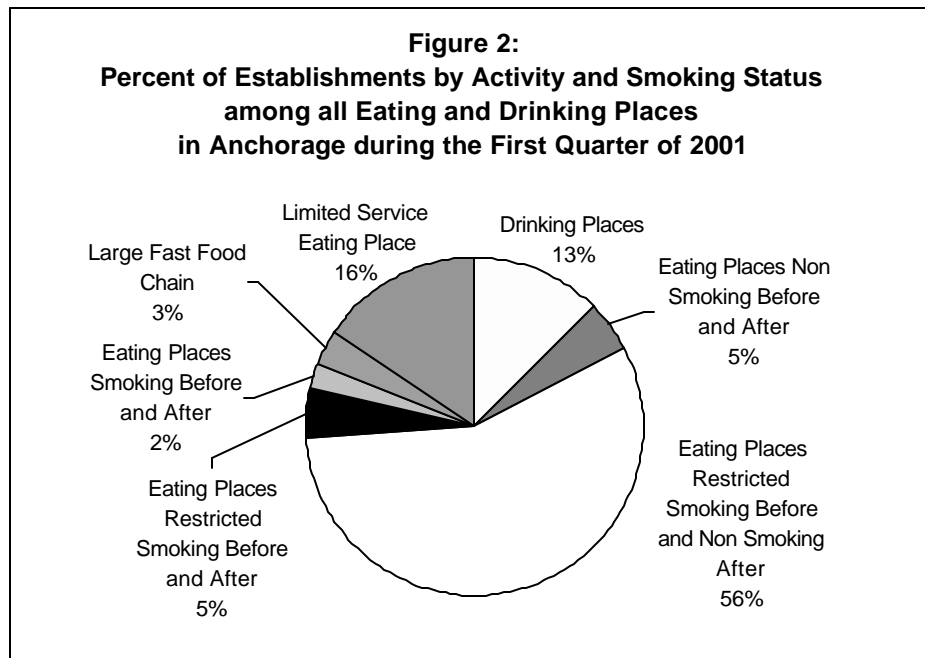
B. Impact on Particular Types of Establishments

In order to look more closely at the impacts on particular types of establishments within the hospitality industry, we created a database of individual establishments most likely affected by the ordinance. The database included employment data for all 522 establishments in the Anchorage hospitality industry and selected amusement services industries that reported employment to the Alaska Department of Labor during the first quarter of 2000 or 2001.⁹

In addition, business license data from the Alaska Department of Community and Economic Development provided more specific information about establishments' activities.¹⁰ To determine the smoking status of individual establishments both before and after the smoking ban, we gathered information from Municipality of Anchorage records, Alaska Alcohol Control Board files, published lists, and about one hundred telephone calls to establishments.¹¹

1. Eating and Drinking Establishments

Using this combined database, we investigated how the smoking ban affected different types of establishments. The largest component of the hospitality industry likely affected by the ordinance is the eating and drinking industry.¹² As shown in Figure 2, the eating and drinking industry is composed of several types of establishments:

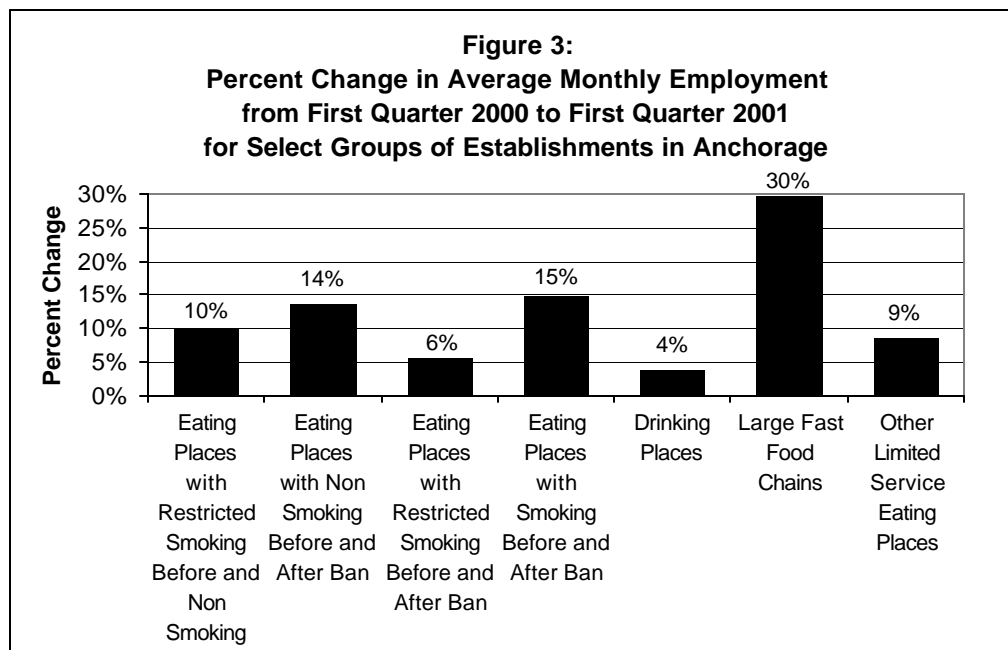


Source: ISER tabulations of employment data from Alaska Department of Labor. Business License records from Alaska Department of Community and Economic Development determine whether the establishment is a limited-service eating place. Smoking status is from liquor license records from Alaska Alcohol Control Board, Municipality of Anchorage records, and American Lung Association publications, and telephone interviews conducted by the University of Alaska Anchorage.

Eating and drinking places that did not change smoking status: include restaurants that were non-smoking before the ordinance and remained non-smoking after the ordinance. In addition, some restaurants with beverage dispensary licenses chose to remain smoking after the ban. Other restaurants with beverage dispensary licenses continued to restrict smoking to particular areas within their establishments. Nearly all bars (drinking places) allowed smoking before and after the ban.¹³ The ordinance is less likely to directly affect these types of establishments because they did not change their smoking status after the smoking ban took effect.

Limited service eating places and fast food chains: The remaining eating and drinking establishments are limited-service eating places with drive-through service, take-out service, or limited seating with no table service. Since many customers do not go inside these establishments or do not stay as long, the smoking ban likely did not affect them as directly as other eating places.¹⁴

In order to compare how employment in each group of establishments changed after the smoking ban, we calculated the percent change in total employment for each group from the first quarter of 2000 to the first quarter of 2001. As shown in Figure 3 (below) and Table 1 (next page), employment *grew* in every group. However, the groups may have grown at different rates.¹⁵



Source: Special ISER tabulations of employment data from Alaska Department of Labor, business license information from Alaska Department of Community and Economic Development, and smoking status from Municipality of Anchorage records, published lists, and telephone surveys .

**Table 1: Preliminary Estimates of Employment
During the First Quarter 2000 and First Quarter 2001 in Anchorage
For Establishments Most Likely Affected by Smoking Ordinance**

Category	Smoking Status Before Ordinance	Smoking Status After Ordinance	Number of Establishments				Total Employment		
			2000	2001	New in 2001	Percent Change	2000	2001	Percent Change
Drinking Places			49	47	2	-4%	714	742	4%
Eating Places	Non Smoking	Non Smoking	19	18	1	-5%	276	313	14%
	Restricted Smoking	Non Smoking	209	218	38	4%	3957	4360	10%
	Restricted Smoking	Restricted Smoking	18	18	0	0%	436	461	6%
	Smoking	Smoking	9	9	0	0%	108	124	15%
Large Fast Food Chain Companies			10	12	2	20%	2125	2755	30%
Limited Service Eating Places			55	59	15	7%	417	453	9%
Bowling			4	4	0	0%	102	104	2%
Bingo			6	4	0	-33%	90	100	11%
Hotels and Motels			51	55	12	8%	2650	3262	23%

Source: Special ISER tabulations of employment data from Alaska Department of Labor, business license information from Alaska Department of Community and Economic Development, and smoking status from Municipality of Anchorage records, published lists, and telephone surveys conducted by the Institute of Circumpolar Health, University of Alaska Anchorage.

The most important comparison is between eating places that changed their smoking status to those that did not. Those establishments that changed their smoking status to non-smoking after the ban grew at 10%. Various groups of establishments that did not change their smoking status grew at rates both greater and less than 10%. Those restaurants that remained smoking grew at 15%. In contrast, the restaurants that continued to allow restricted smoking grew at only 6%. Those that were non-smoking both before and after the ban grew at 14%. Bars that allowed smoking before and after the ordinance grew only 4%.

These relative rates do not provide consistent evidence that the ordinance had an impact on employment at establishments that changed their smoking status to non-smoking. On the one hand, these establishments grew *less* than restaurants that either continued to allow smoking or never allowed smoking in the first place. On the other hand, these same establishments (that changed their smoking status to non-smoking) grew *more* than restaurants that continued to allow restricted smoking, and *more* than bars that continued to allow smoking.

Aside from this inconsistent evidence, statistical tests show that the relative growth rates of different groups are not statistically significantly different. Because of the small group sizes and substantial variation in growth rates *within* each group, we could not detect any statistically significant difference in growth rates between the groups.¹⁶

We investigated whether the size and activities of establishments could help clarify these results, calculating the growth in employment for both small establishments (with fewer than twenty employees) and large establishments (with twenty or more employees). The growth rate of bars that have food services were also investigated.

It is important to note that these calculations necessitated dividing establishments into very small groups that, in some cases, included fewer than ten establishments. Because the groups were so small, estimates of their growth rates were not statistically precise, and conclusions on statistical significance could not be drawn. We can only present preliminary hypotheses that will require additional quarters of data to verify.

Based on the very limited data currently available, small restaurants that changed their status to non-smoking, and large restaurants that continued to allow restricted smoking, *may* have grown more slowly than other types of restaurants. Large restaurants that changed to non-smoking and small restaurants that remained smoking *may* have grown faster than other establishments. In addition, bars (which typically hire fewer employees than restaurants) *may* have grown more slowly than most eating places. Small bars, as a group, actually experienced a decline in employment. Bars that offer some food service *may* have grown faster than bars that did not.

One plausible hypothesis that partially explains these observations is that *large* eating and drinking establishments, as a group, grew faster than small establishments -- independently of the smoking ban. Aside from this independent shift to larger establishments, the smoking ban *may* have encouraged a redistribution of smoking customers *away* from small restaurants that no longer allow smoking and *toward* both small restaurants that allow smoking and *toward* bars that serve food. As mentioned above, these are preliminary hypotheses that will require additional quarters of data to verify statistically.¹⁷

2. Other Types of Establishments

Aside from eating and drinking places, several other types of establishments likely affected by the ordinance were investigated, including hotels and lodging places, bingo parlors, billiard parlors, and bowling alleys.

Hotels and Lodging Places: According to Alaska Department of Labor revised estimates, employment in this industry grew at 5.2% during the first quarter of 2001 and declined by -2.1% during the second quarter of 2001. On average, for the first half of 2001, employment grew by 1.3%. Municipality of Anchorage hotel bed tax

receipts confirm that the industry grew strongly during the first quarter of 2001 when bed tax receipts increased by 18% relative to the first quarter of 2000.¹⁸

The growth rates of both employment and bed tax receipts for hotels and lodging places vary substantially across years and quarters. In addition, many hotels and lodging places report total employment for the entire establishment and do not separate the employment for bars, restaurants, and other services within the hotel.¹⁹ For these reasons, with the available data, it is impossible to accurately describe the impact of the smoking ban on hotels and lodging places.

Bingo: Most bingo parlors now allow smoking and have a separate, restricted area for non-smoking. The four Anchorage bingo parlors that reported employment to Alaska Department of Labor experienced an 11% increase in employment during the first quarter of 2001. However, the small number of establishments reporting employment in this industry makes it impractical to draw conclusions about how much of their growth was attributable to their smoking status.

Billiard Parlors: Several of the major billiard parlors in town hold beverage dispensary licenses (full liquor licenses). They have the option to allow smoking if they meet certain requirements in the ordinance. Billiard parlors likely attract similar customers as bars that have separate rooms with billiard tables. Billiard parlors with full beverage dispensary licenses were included in the analysis of drinking places described above. A few of the remaining billiard parlors are part of larger amusement centers where various types of entertainment are available. With available data, it is impossible to separate out the employment for just the billiard operations of these establishments.

Bowling Alleys: Most, but not all, of the bowling alleys in town have separate bars, and some still allow smoking. These separate bars were included in our analysis of drinking places described in the previous section. There are four bowling alleys that report employment for the bowling alley operations separately from their bar. These bowling alleys experienced a 2% increase in employment during the first quarter of 2001.

C. Conclusions

Based on revised estimates of employment from the Alaska Department of Labor, the smoking ban had no detectable impact on total employment in the hospitality industry *as a whole* in Anchorage during the first seven months of 2001. Based on detailed employment data for over 500 establishments during the first quarter of 2001, some specific types of establishments *may* have grown faster than other types after the smoking ban took effect.

These results are preliminary and subject to revision for the following reasons:

1. The results rely on just a few months of data that do not include the entire summer tourism season.

2. Employment in the Anchorage economy grew at substantially different rates during the first and second quarters of 2001. At least one year of data are needed to control for these seasonal fluctuations.²⁰
3. Businesses, employees, and customers likely continue to adapt to the smoking ban.
4. Long-run, indirect economic impacts, such as cost savings from improved employee and customer health, may have not yet occurred.

IV. Acknowledgements

This report would not have been possible without the assistance of a number of individuals.

Nancy Merriman the Project Officer within the Municipality of Anchorage, Health and Human Services Department Planning Office, was consistently supportive of the review process and helpful in making the entire process move forward smoothly.

Jewel Jones, Director of the Health and Human Services Department, was critical in facilitating several important discussions that brought to light important considerations for this review.

This report would also not have been possible without the assistance of a number of other Municipal staff members. Everyone with whom we dealt freely and helpfully offered information and assistance during this review. This openness and willingness to provide information contributed significantly to the completion of this review in a timely fashion.

Particular thanks must be given to the Advisory Committee members who were appointed by Mayor Wuerch. These individuals participated in some very intense discussions, reviewed a number of documents, and provided broad insight and commentary on the workings of this ordinance. Without their active participation this review would not have the practicality of public engagement that was necessary.

External from the primary review process but integral to its success were Neal Fried and others of the Alaska State Department of Labor who provided key data for the economic assessment. These individuals and those who provide and manage these data must be thanked.

This review has addressed the criteria set forward by the Assembly. All the comments and suggestions are offered for the improvement of health of the people of Anchorage and to make the ordinance in question practical.

Endnotes for Economic Impact Analysis

¹ Four other measures of economic activity were investigated, but employment data were determined the best available: 1) Many previous studies of the economic impact of smoking bans have relied on sales tax revenues to measure changes in business activity. However, neither the Municipality of Anchorage nor the State of Alaska collects a sales tax. 2) The Alaska Department of Revenue collects the state alcohol tax from *wholesale* distributors. Because the tax is collected from wholesalers, it is not possible to separately measure how much of the alcohol tax is paid by retail establishments located in Anchorage and how much is paid by retail establishments outside Anchorage. 3) State corporate income tax figures for 2001 will not be available from the Alaska Department of Revenue until after July 2002. 4) Building permits issued by the Municipality do not provide sufficient detail to determine whether a firm made renovations in response to the ordinance.

² “Eating and Drinking Places” include all establishments with four-digit SIC (Standard Industrial Classification) codes 5812 or 5813 and “Hotels and Lodging Places” include all establishments with SIC code 7011. All growth rates reported in this section were calculated using the following formula:

Percent Change in average monthly employment =

$$\frac{(\text{Avg. monthly employment from Jan 2001 to July 2001} - \text{Avg. monthly employment Jan 2000 to July 2000})}{(\text{Avg. monthly employment Jan 2000 to July 2000})}$$

This formula uses “revised estimates” of average monthly employment from the Alaska Department of Labor at their web site <http://www.labor.state.ak.us/research/region/anc.htm>. Notably, these are not final numbers and are subject to revisions by the Alaska Department of Labor. In early October 2001, the Alaska Department of Labor also provided “preliminary” estimates of average monthly employment for August 2001. These “preliminary” estimates are less reliable than the “revised” estimates and more likely subject to revision. When we included the “preliminary” estimates for August 2001 in our calculations, our findings did not change.

All employment growth rates were adjusted to remove new employment attributable to the Special Olympics 2001 World Winter Games held in Anchorage during March 2001. These employment estimates are based on a surveys conducted by the Institute of Social and Economic Research for the 2001 World Winter Games Organization Committee.

³ For the purposes of this report, the eating and drinking industry includes all establishments with four-digit SIC code 5812 or 5813.

Table 2 summarizes the annual percent change in average monthly employment for the first seven months of each year using the same formula described in endnote two. Only in 1998 did the eating and drinking industry grow more slowly than the economy as a whole. In all others years since 1995, the eating and drinking Industry grew faster than both the economy as a whole and all of retail trade (which includes eating and drinking places).

Table 2:
Annual Percent Change in Average Monthly Employment
For the First Seven Months of each Year
Relative to First Seven Months in the Previous year
For Select Industries in Anchorage

Industry	1995 to 1996	1996 to 1997	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001
All Industries in Anchorage	0.0%	2.3%	4.0%	1.9%	2.5%	1.4%
Total Retail Trade (including Eating and Drinking Places)	-0.4%	4.5%	1.4%	1.6%	1.5%	0.8%
Eating and Drinking Places	0.4%	5.3%	2.5%	2.6%	2.5%	2.4%
Hotels and Lodging Places	-4.2%	2.8%	3.8%	11.9%	-1.4%	1.1%
All Industries <i>other</i> than Eating and Drinking Places and Hotels and Lodging Places	0.1%	2.1%	4.1%	1.6%	2.6%	1.3%

Source: Alaska Department of Labor revised estimates of employment from <http://www.labor.state.ak.us/research/region/anc.htm>.

⁴ Statistical tests were conducted to see if the growth in employment during the first eight months of 2001 is significantly different from the growth rate in previous years. We did an Ordinary Least Squares time series regression using eighty observations of monthly employment data from Alaska Department of Labor.

The dependent variable in the regression was the natural logarithm of the ratio employment in eating and drinking industry to employment in the Anchorage economy as a whole. Several alternative specifications of the dependent variable were also investigated. The first alternative was the natural logarithm ratio of eating and drinking employment to total employment in all industries *other than eating and drinking*. The second alternative was the natural logarithm of the ratio of eating and drinking employment to total retail employment.

The three independent variables in the regression were a time trend variable and two fixed effect variables. The time trend variable is equal to one in the first period and incremented by one in each succeeding period. The first fixed effect variable is equal to one in March 2001 and zero otherwise and controls for the effect of the Special Olympics. The second fixed effect variable is equal to one for January through August 2001 and is equal to zero in all months before January 2001. This fixed effect variable controls for the effect of the smoking ban that took effect in January 2001.

Table 3 summarizes the regression results. The fixed effect variable for 2001 was *not* statistically significant at the 95% confidence level. These results imply that the smoking ban did not have statistically significant impact on total employment in eating and drinking places during the first eight months of 2001.

**Table 3:
Time Series Regressions of the Employment Share
Of the Eating and Drinking Industry in the Anchorage Economy**

Dependent Variable	Independent Variables					
	Statistics for independent variables	Constant	Time Trend Variable	Fixed Effect Variable for Special Olympics	Fixed Effect Variable for 2001	R ²
Ln (Employment in Eating and Drinking / Total Anchorage Employment)	Coefficient	-2.7038	0.0007	-0.0269	-0.0023	0.32
	(Std Error)	(0.0234)	(0.0001)	(0.0250)	(0.0107)	
Ln (Employment in Eating and Drinking / Total Anchorage Employment – Employment in Eating and Drinking)	Coefficient	-2.6345	0.0008	-0.0290	-0.0025	0.32
	(Std Error)	(0.0251)	(0.0001)	(0.0268)	(0.0115)	
Ln (Employment in Eating and Drinking / Total Employment in Retail Trade)	Coefficient	-1.0639	0.0009	-0.0176	0.0165	0.51
	(Std Error)	(0.0231)	(0.0001)	(0.0247)	(0.0105)	

Regressions used Ordinary Least Squares and 80 observations of average monthly employment data from January 1995 through August 2001 from Alaska Department of Labor. "Ln" indicates the natural logarithm of the specified ratio.

⁵ "Hotels and Lodging Places" includes all establishments with the four-digit SIC code 7011. See the table in endnote 3 for the annual rates of growth of employment in "Hotels and Lodging Places" over the past six years.

⁶ During the first quarter of 2001, employment in "Eating and Drinking Places" grew at 4.8%, Hotels and Lodging Places grew at 5.2%, and the economy as a whole grew at 2.4% relative to the first quarter of 2000. In contrast, during the second quarter of 2001, the economy as a whole and most industries grew more slowly relative to the second quarter of 2000. During the second quarter, employment in the economy as a whole and "Eating and Drinking Places" industry remained nearly constant, while "Hotels and Lodging Places" contracted by -2.1%.

⁷ For the most recent and comprehensive application of this methodology, see Sciacca (1998) For an application of this methodology to California, see Glantz and Smith (1994 and 1997). Other studies that use this methodology and found similar results include Bartosch (1999), Corsun (1996), Glantz and Charlesworth (1999), Glantz and Smith (1994a) Glantz and Smith. (1994b), Glantz and Smith (1997), Goldstein and Sobel (1998), Hyland and Nauenberg (1999), Sciacca (1993), Sobel et al. (1998). See Evans (1997) for a critique of this methodology.

⁸ For example, see Peat Marwick, LLP (1998). This study surveyed a sample of bars in California. Of those surveyed, they perceived an average decrease in sales of 26.2% after smoking ban in bars went into effect.

Some previous studies have compared the impact of smoking bans across different communities. For example, see Lilley (1996) for a comparison of the impact of smoking bans across cities in Massachusetts. They found that cities in Massachusetts with the most restrictive smoking bans experienced a decline in employment. See Glantz (1994) and Glantz (1997) for a comparison of the

impact of smoking bans across towns in California and Colorado. These two studies by Glantz found that smoking bans did not have a detectable impact.

Some previous studies have conducted surveys of customers asking specific questions about how they would adapt (or how they actually adapted) to smoking bans. For example, see CCG Consulting Group Limited (1995 and 1996) and Corsun (1996). These studies found that smokers and non-smokers respond differently to smoking bans.

⁹ Alaska Department of Labor provided the names and number of people employed in each establishment in the Municipality of Anchorage with four-digit SIC (Standard Industrial Classification) code 5812, 5813, 7011, 7933, or 7999. They included all establishments that reported employment in Anchorage during January, February, or March in either 2000 or 2001. From SIC industry 7999 (Miscellaneous Amusement Services), we included only bingo halls and billiard parlors and excluded all other types of amusement establishments. These employment figures are from final data submitted by the establishments to the Alaska Department of Labor. The final data for individual establishments for the first quarter of 2001 were available in August 2001. Final data for the second quarter 2001 were not available in early October 2001.

¹⁰ Business license records from the Division of Occupational Licensing in the Alaska Department of Community and Economic Development list the primary and secondary activities of individual establishments. This information enabled us to separate "Eating and Drinking Places" into groups of bars, bars with food service, full service restaurants, fast food companies, and limited service eating places. The names of owners and addresses in the business license files were useful when matching employment and liquor license files. The business license files contained many businesses that were not in operation but still had active business licenses. Business licenses last for two years and the licenses remained in effect even after some of the businesses closed and no longer reported employment. In addition, business licenses include many establishments that do not have any employees. Notably, hundreds of bed and breakfasts have business licenses, but do not report employment. All businesses that did not report employment to the Alaska Department of Labor were excluded.

¹¹ The names, owners, and addresses of establishments with one of the following types of full beverage dispensary licenses were extracted from the State of Alaska Alcohol Control Board master file of all liquor licenses in the state: Beverage Dispensary, Beverage Dispensary Tourism-Seasonal, Beverage Dispensary-Duplicate, Beverage Dispensary-Seasonal, Beverage Dispensary-Tourism AS 04.11.400(d), and Beverage Dispensary-Tourism Duplicate. Only information from those liquor licenses that had "Anchorage" as their "city code" or an Anchorage address were extracted. Liquor licenses issued for Anchorage but used in establishments located outside Anchorage were excluded. The remaining full beverage dispensary licenses were matched to the business license files and employment files described above.

For this analysis, it was necessary to determine the smoking status of each establishment both before and after the smoking ban. It was assumed that establishments complied with the ordinance and were non-smoking if required by the ordinance, as well as that all bars were smoking before and after the ordinance. It was also assumed that hotels were restricted smoking before the ordinance, and non-smoking after the ordinance. The reliability of these assumptions depends critically on whether or not establishments complied with the smoking ban. Evidence from site visits, citations, and complaints to the Municipality suggests that public establishments such as eating and drinking places, hotels and lodging places, and amusement places have complied with the ordinance. To supplement these assumptions, all restaurants with full beverage dispensary licenses were telephoned and asked whether they still allow smoking and whether it was restricted to a particular area.

¹² As mentioned above, for the purposes of this report, the eating and drinking industry includes all establishments with SIC code 5812 or 5813.

¹³ For the purposes of this report, “drinking places” includes all establishments that have a four digit SIC code of 5813. Eating places includes all establishments with SIC code 5812. Notably, these classifications by SIC code in the Alaska Department of Labor database are not always consistent with the self-reported industry designation in the Alaska Department of Community and Economic Development business license database. When there was an inconsistency, the Alaska Department of Labor SIC classification was used to group establishments by industry.

¹⁴ The count of fast food “establishments” reported in the figures and tables is a total number of *companies* (such as McDonalds, Burger King, Subway, and Taco Bell). Each of these companies operates numerous locations within the Municipality. There are about twelve major fast food companies operating a total of over on hundred fast food locations in Anchorage. Employment data available from the Department of Labor do not always clearly distinguish the different locations for a single company. However, it is possible to calculate employment for all locations operated by a particular company. Notably, even though fast food companies comprise only 3% of establishments, these large companies employ about 30% of all workers in the Anchorage eating and drinking industry.

¹⁵ These counts of establishments and employment include most, but not all, establishments in Anchorage. The numbers in this section of the report are *samples* rather than a complete *census* of all establishments. About 90% of all drinking places and 70% of all eating places are included in the sample. Reasons establishments were excluded from the sample are not related to their smoking status or their rate of growth in employment. As a result, for the purposes of the statistical tests in this analysis, the samples are unbiased and representative. Establishments were excluded from the samples for a number of different reasons:

- Some establishments do not report employment because they are proprietorships and do not have any employees.
- Some establishments have headquarters located outside Anchorage and report a single comprehensive count of total employment for all of their locations. The employment for these types of establishments is reported in the city where the headquarters are located rather than in Anchorage.
- Some establishments have headquarters in Anchorage and report a single total employment at those headquarters. Some of these companies include employment for locations both inside and outside Anchorage. In particular, some fast food companies that report employment at their Anchorage headquarters include in these totals some employees at locations in both Anchorage and the Matanuska-Susitna Borough.
- A few establishments changed ownership or mailing addresses, so employment data from 2000 and 2001 cannot be reliably matched to calculate the growth rate.

¹⁶ The mean and the standard deviation of the percent change in employment *within* each group of establishments were calculated. These statistics were used to test the hypothesis that the mean growth rates of different groups are different. Because of the very small sample sizes (sometimes fewer than ten establishments) and large variation in growth rates *within* each group, it was impossible to detect any statistically significant difference in growth rates *between* most groups. Only the growth rate of fast food restaurants was statistically significantly greater than other groups. Larger groups of establishments or more quarters of data are needed to reliably test these hypotheses.

¹⁷ These conjectures are comparable, but not identical, to results reported in Applied Economics (1996a). With only two months of sales tax data, this study investigated the impact on different types of establishments in Mesa Arizona. Their preliminary findings were that sales in bars grew while sales in bowling alleys, billiard parlors, and restaurants declined after the smoking ban. Applied Economics (1996b) conducted extensive interviews with businesses in Mesa and developed hypotheses about how the smoking ban affected different types of businesses.

¹⁸ Over two hundred bed and breakfast lodging places have business licenses in Anchorage. Nearly all are proprietorships that do not report employment to the Department of Labor. As a result, it is impossible to measure the impact of the smoking ban on this group of lodging places using employment data. However, the Municipality does report hotel bed tax receipts collected by “Other” types of lodging, including bed and breakfasts. This group of “other” lodging places experienced a 29% increase in bed tax receipts during the first quarter of 2001 relative to 2000. Some of this increase may be attributable to the Special Olympics.

¹⁹ When a hotel reports employment for a bar or restaurant separately from employment for the rest of the hotel, these bars or restaurants were included in the analysis of eating and drinking places.

²⁰ A full year of final employment data would likely be available from the Alaska Department of Labor by fall 2002. State corporate income tax receipts for both 2000 and 2001 would also likely be available by fall 2002.