A G E N D A

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METRO

Agenda

MEETING: METRO COUNCIL REGULAR MEETING - REVISED
DATE: February 19, 1998
DAY: Thursday
TIME: 2:00 PM
PLACE: Council Chamber

Approx. Time*			Presenter
2:00 PM		**CALL TO ORDER AND ROLL CALL**	
(5 min.)	**1.**	**INTRODUCTIONS**	
(5 min.)	**2.**	**CITIZEN COMMUNICATIONS**	
(20 min.)	**3.**	**EXECUTIVE OFFICER COMMUNICATIONS**	
	3.1	1998-99 Proposed Budget Presentation	
(10 min.)	**4.**	**MPAC COMMUNICATIONS**	
	5.	**CONSENT AGENDA**	
2:40 PM (5 min.)	5.1	Consideration of Minutes for the February 12, 1998 Metro Council Regular Meeting.	
	6.	**ORDINANCES - FIRST READING**	
2:45 PM (15 min.)	6.1	**Ordinance No. 98-724,** For the Purpose of Adopting the Annual Budget for Fiscal Year 1998-99, Making Appropriations, Creating Funds, Levying Ad Valorem Taxes, Authorizing Interfund Loans, and Declaring an Emergency. *(PUBLIC HEARING)*	
	7.	**ORDINANCES - SECOND READING**	
3:00 PM (5 min.)	7.1	**Ordinance No. 97-710,** For the Purpose of Establishing a Coordinated 2017 Population Forecast for Use in Maintaining and Updating Comprehensive Plans.	Morissette

	8.	**CONTRACT REVIEW BOARD**	
3:05 PM (5 min.)	8.1	**Resolution No. 98-2608**, For the Purpose of Entering into A Multi-Year Contract with the Most Qualified Proposer by Authorizing Issuance of a Request for Proposals for an Urban Reserve Productivity Analysis.	Naito
	9.	**EXECUTIVE SESSION HELD PURSUANT TO ORS 192.660(1)(e). DELIBERATIONS WITH PERSONS DESIGNATED TO NEGOTIATE REAL PROPERTY TRANSACTIONS**	
3:10 PM (5 min.)	9.1	**Resolution No. 98-2607**, For the Purpose of Authorizing the Executive Officer to Purchase Property in the Cooper Mountain Target Area.	McFarland
3:15 PM (10 min.)	**10.**	**COUNCILOR COMMUNICATION**	
		ADJOURN	

CABLE VIEWERS: Council Meetings, the second and fourth Thursdays of the month are shown on City Net 30 (Paragon and TCI Cablevision) the first Sunday after the meeting at 8:30 p.m. The entire meeting is also shown again on the second Monday after the meeting at 2:00 p.m. on City Net 30. The meeting is also shown on Channel 11 (Community Access Network) the first Monday after the meeting at 4:00 p.m. The first and third Thursdays of the month are shown on Channel 11 the Friday after the meeting at 2:00 p.m. and the first Sunday and Wednesday after the meeting on Channels 21 & 30 at 7:00 p.m.

PUBLIC HEARINGS: Public Hearings are held on all Ordinances second read and on Resolutions upon request of the public.
All times listed on the agenda are approximate; items may not be considered in the exact order.
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Agenda Item Number 5.1

Consideration of the February 12, 1998 Metro Council Regular meeting minutes.

Metro Council Meeting
Thursday, February 19, 1998
Council Chamber

MINUTES OF THE METRO COUNCIL MEETING

February 12, 1998

Council Chamber

Councilors Present: Jon Kvistad (Presiding Officer) Ruth McFarland, Susan McLain, Ed Washington, Lisa Naito, Don Morissette

Councilors Absent: Patricia McCaig (excused)

Presiding Officer Kvistad convened the Regular Council Meeting at 2:03 p.m.

1. INTRODUCTIONS

None.

2. CITIZEN COMMUNICATION

Art Lewellan, 3205 SE 8th #9, Portland OR 97202, reviewed the latest developments for the LOTI east bank alignment design alternate to the South North Light Rail. To Tri-Met's original objection to the LOTI design, the transfers created in Brooklyn, the OMSI district and the Rose Quarter, he answered that his plan did include a downtown destination but served eastside destinations first and ended at the Galaria turnaround. He countered that the problem of transferring was entirely related to the amount of time waiting to transfer and felt that Tri-Met did not understand or apply this fundamental transit principal. He said busses connected to the eastside lightrail failed to attract sufficient ridership because most have service frequencies of one-half hour or more. He felt the system was geared toward people who drove to park and ride lots and not to people who had to transfer from bus to lightrail. He felt LOTI would reduce the cost of the South North lightrail while building proper connections with the savings. He reiterated his plan for saving time and money.

Councilor Washington appreciated Mr. Lewellan keeping the Council informed.

Councilor McFarland said that she shared Mr. Lewellan's view of the problem that it was not the time spent in transporting yourself but the time spent in waiting for the transfers to buses and MAX that ultimately added up to her riding public transportation less often than she would if she didn't have to wait so long. She felt this was a very important issue.

Mr. Lewellan said he understood that Union Pacific was considering redoing tracks along that corridor and that he was more interested in building more light rail instead of more expansive lightrail.

Presiding Officer Kvistad complemented Mr. Lewellan on his consistency with new information for the meetings. He asked if Mr. Lewellan had submitted his downtown components to the City of Portland, Department of Transportation and noted that Council had

listened and appreciated his efforts. He said the information had been given to Metro staff and really looked at.

Councilor Morissette asked Councilor Washington if the Transportation Planning Committee had looked at Mr. Lewellan's design.

Councilor Washington responded that they had not analyzed his design specifically but had the information and would look at it.

Councilor Morissette said that, when he was a member of the Transportation Planning Committee, they had looked at the design and found that there would not be enough ridership on the eastside location. He asked if it would be worth the analysis to see if that had changed.

Councilor Washington continued that Mr. Lewellan's information would be evaluated and if it came up that Mr. Lewellan's information was not applicable, he would say so.

Councilor Morissette said there had been a discussion about limited dollars for study.

Councilor Washington said that decision would be made in the next 2-3 weeks.

Councilor Morissette said the crux of the question was, is there a reason we should spend millions of dollars to study the eastside location or not.

Presiding Officer Kvistad said since he had attended JPACT, he could respond to Councilor Morissette's question. There were several members of JPACT that stated they were interested in the east bank alignment. He felt that Mr. Lewellan had some good points about alternatives.

Councilor Morissette said in response to Mr. Lewellan's ongoing process, the experts seemed to think that in order to get ridership, probably the alignment they were looking at made the most sense.

Councilor Washington said that he felt the appropriate thing to do would be to schedule a Transportation Planning Committee to review Mr. Lewellan's design. He would make sure the transportation department would be available.

Mr. Lewellan said he would like to be part of that discussion..

Councilor Washington said that the meetings were open to all and he would be invited to attend.

3. EXECUTIVE OFFICER COMMUNICATIONS

None.

4. MPAC COMMUNICATION

Councilor McLain said there will be MPAC members attending the Council meeting on February 26, 1998 Council Meeting to hear the Title III work.

Councilor Naito updated the Council on the issue of RFP and that it should have already been distributed to Council. She said the reordering proposal in terms of master planning would be tabled until the Title III work had been done and the legal positions on the reordering had been received. She suggested that there should be another evening public hearing on the water issues, perhaps in early April.

5. CONSENT AGENDA

5.1 Consideration meeting minutes of the February 5, 1998 Regular Council Meeting.

Motion: **Councilor Washington** moved to adopt the meeting minutes of February 5, 1998 Regular Council Meeting.

Seconded: **Councilor Naito** seconded the motion.

Vote: The vote was 6 aye/ 0 nay/ 0 abstain. The motion passed unanimously of those present.

6. ORDINANCES - FIRST READING

6.1 **Ordinance No. 98-728,** Amending the FY 1997-98 Budget and Appropriations Schedule by transferring $51,623 from Contingency to Personal Services in the Zoo Operating Fund to provide for staffing of the new facilities associated with the Oregon Project; and Declaring an Emergency.

Presiding Officer Kvistad assigned Ordinance No. 98-728 to the Regional Facilities Committee.

7. ORDINANCES - SECOND READING

7.1 **Ordinance No. 97-710,** For the Purpose of Establishing a Coordinated 2017 Population Forecast for Use in Maintaining and Updating Comprehensive Plans.

Motion: **Councilor Morissette** moved to adopt Ordinance No. 97-710.

Seconded: **Councilor McLain** seconded the motion.

Discussion: **Councilor Naito** asked for a point of personal privilege indicating that she had an agenda which she had been working from and now there was another one that was different. She asked that next time she could have the revised agenda say "revised" and have someone let Council know they were revised.

Councilor Morissette explained that the expectation of the 2015 - 2017 were the population numbers that were being dealt with in Growth Management.

Councilor McFarland said, with the apologies to Councilor Naito, she just decided this would be an addition that she could support. She said in the interest of fairness.

Councilor Naito said that she believed there was a city in a floodplain that had a projection not to increase their growth, in this kind of instance growth would not be encouraged.

Councilor McFarland said she guessed that this did not include someone who had something that stopped them from doing it.

Councilor McFarland read the projections into the record. She said maybe something needed to be added to the second paragraph to say "within the limits of the environmental constraints".

Presiding Officer Kvistad asked if Councilor McFarland was offering an amendment. Councilor McFarland moved the following:

Motion to Amend: **Councilor McFarland** moved to amend Ordinance No. 97-710 with the following language: "These projections estimate aggregated County growth only over the planning period. These projections make no estimate of the projected population trends of individual cities.

This ordinance did not authorize any city to include in a comprehensive plan or land use regulation any projection for zero growth or a declining population.

Additionally, no city may avoid taking its fair and appropriate share of the regions growth consistent with State and regional law."

Seconded: **Councilor Morissette** seconded the amendment.

Discussion: **Mr. Mark Turpel** said he had not seen anything on it but his concern was that the smaller the geography, the trickier and the more out on a limb you would be in terms of any long term kinds of things. If there was a policy issue to be addressed, he would be happy to try to facilitate it.

Councilor McLain said this issue that was before Council today, was not discussing change of methodology or figures reviewed and use, but was a legal responsibility to update our population forecast. She felt if Council wanted to talk about methodology or fair share, this was not the ordinance to do it in. She felt this amendment did not fit the document.

Councilor Morissette said he had concerns in Committee that was all it would do. He said now additional information made people think it would do more. He said what Councilor McLain was saying was not exactly what the people were concerned about and felt it would be appropriate to have them discuss the point.

Councilor McFarland said this addressed the basic Code of Metro without it being included in the document. If the document circumvented the basic Code of Metro, it should be included in the document. If the majority felt it was not the place but they were willing to consider this kind of legislation in a different setting, then she would be willing to settle for that. She felt the issue needed to be addressed. She felt it should be reiterated right here.

Councilor Washington asked if there had been any discussion about the amendment before the Growth Management Committee.

Councilor Morissette responded that the committee had not reviewed the amendment but the particular concerns that the amendment spoke to had been discussed. He encouraged discussion of the aforementioned issues at Council.

Councilor Washington said he was not prepared to discuss the amendment if it had not been before committee. He recommended having Growth Management Committee discuss it first.

Councilor Naito said they had worked on this ordinance and it was ready to be passed. She did suggest testimony be taken before voting. She did not feel it needed to go back to committee.

Presiding Officer Kvistad said that this had to be settled whether it went back to committee or not.

Mr. Mark Turpel said if the Council felt this needed to be clarified, he felt this could be added as a clarifying statement without any problems.

Presiding Officer Kvistad said in terms of the document a delay of a week or two in the approval of the ordinance did not put the work product at risk.

Mr. Dan Cooper, Legal Counsel, said no that would not be a problem.

Presiding Officer Kvistad opened a public hearing on Ordinance No. 97-710.

Mr. Ed Starkie, Leland Consulting, representing the Halton Company said he had brought some reservation about the numbers before. Some things had changed since 1997, for instance, jurisdictional numbers had changed while the county numbers remained somewhat consistent. If these numbers did not apply to the cities, he strongly urged the clarification be added because the express purpose of this was to provide numbers for planning purposes. He also noted a significant change in the proposed land supply for the next 30-40 years. Given that difference, he suggested that Dennis Ye take a look at the numbers again with regard to supply and demand of land.

Presiding Officer Kvistad asked about one of Mr. Starkie's charts regarding the current trend line and the expected one.

Mr. Starkie responded the population estimates from last January only ran up to 2015 and even then there was a difference of almost 2000 population.

Presiding Officer Kvistad said he was positively disposed to the changes but wanted to make sure he was very clear before the language was added.

Councilor McLain said she was amazed by this. She said they were talking about forecasting and best guess scenarios and should remember that it was not straight lined and parts of the formula were put in to deal with some other issues relevant. They felt the last 5 years could be reviewed but unless the original document was reviewed, the language here was not going to help. She felt it was an editorial comment.

Mr. Starkie said that he saw different jurisdictional numbers. If they were consistent with 2015, he would not be here.

Councilor McLain said the TAZ issue and how it related would change with capacity and other items.

Mr. Starkie said when you get to the jurisdictional level the model produced statistical anomalies which were not realistic.

Councilor McLain said the purpose was to establish a coordinated population forecast for use in maintaining and updating comprehensive plans so it would change from year to year.

Mr. Starkie said absolutely, and the overwhelming parts of the Urban Reserves were in Clackamas County and none of the growth was occurring there.

Councilor McLain suggested coming to talk with Council about his issue, but this document was not the problem.

Presiding Officer Kvistad said this was the time for personal comments as it was public testimony.

Councilor McLain said that in 7 years she had not dealt with an issue like this before and she felt that this issue should be put off a week.

Presiding Officer Kvistad said this will be set aside for a week but there were other citizens who wished to testify.

Councilor Naito asked for a point of information, she felt that it was appropriate thing to do and thanked Mr. Starkie for coming. She said before an ordinance was adopted, there certainly needed to be public involvement.

Mr. Starkie said the last time he was here he was assured that these would not be used for looking at city projections. Since then he had read the backup documentation that talked about the reasons DLCD was asking for the projections and was back to reiterate the concerns.

Presiding Officer Kvistad said Mr. Starkie's concerns were very well founded.

Councilor Washington said with all due respect to the Council he would like to hear the public testimony without getting into a heated dialogue about what they said.

Mr. John Weigant, 429 N. Bridgeton Rd #B, Portland, OR 97217 expressed two concerns, one: was the econometric projections valid, and, two, at the detail level, these changes could easily be carried out in a week. He noted Exhibit A, the Tri-County total for the year 2020 projected 1,8767,396 people in the region. He also noted the estimates were rounded to the nearest 5000 and the projections for 30 years hence were to the nearest person. As a technical suggestion, he said rounding all of the numbers to the nearest 1000 because there was a public perception when using the numbers that if they were accurate to the last person they appeared to have a precision to them that was simply not there. He said the importance to the econometric projections and their resulting population projections were so vital to the future of the region that this deserved a

very careful study even if it required a revision in planning. He felt that 7 year old econometric projections were suspect at best.

Ms. Wendie Kellington, Schwabe, Williamson and Wyatt, 1211 PacWest Center #1700 Portland OR 97204 spoke representing the Halton Company. She said she was very concerned about the projection numbers and had been for some time. She said she wanted the Council to know that getting to the bottom of the numbers had not been easy. The populations projection did not appear to reflect the important legal and policy decisions that the Council had made over the last year and half. She said Council should be very careful before adopting something like this.

Councilor Naito said that what she heard Ms. Kellington saying was that policies Council had adopted would change this. They may be in a catch 22 with the projections vs. the need.

Ms. Kellington said there was a statute that required Council to include population projections that could be included within city and county comprehensive plans. She said the population projections were a planning tool to decide where the region's growth would take place.

Councilor McLain asked Ms. Kellington if these projections were spiking up in the wrong way or were too low.

Ms. Kellington responded that she did not think the projections fairly allocate the growth of the region consistent with Council's policy decisions.

Councilor McLain asked if Ms. Kellington disagreed with the model that had been used.

Ms. Kellington said she had been trying for 2 weeks to figure out what model had been used.

Councilor McLain said that Council would be happy to share that as it had been in the public arena for over 5 years.

Ms. Kellington said this model was different.

Councilor McLain said no it wasn't and she and Dennis would be welcome to come to her office for an explanation. She asked for separation of the three issues Ms. Kellington was bringing to this meeting. She said the issue of not understanding the model could be fixed. She asked if the second issue, the concern about how the numbers changed from county to county or overall as far as totals, was a disagreement with the totals or with the way the information was being displayed.

Ms. Kellington said Council had made a whole lot of important decisions and an auditor coming in to look at the numbers would discover that those decisions were not reflected here but rather there was an important subset of policy decisions reflected in these population projections and allocations that were inconsistent with those decisions.

Councilor McLain said she understood at least the kernel of the question.

Presiding Officer Kvistad closed the public hearing and asked for general discussion.

Councilor Morissette suggested that Mr. Turpel take the time with Mr. Ye to work out the issues with Mr. Weigant. Mr. Turpel agreed.

Councilor Washington suggested, when the numbers were not understood, those people should be helped to understand.

Councilor Morissette clarified that he had been going at this for a while and he had faith that the answers were appropriate. He said he would be available for discussion and explanations of the numbers.

Mr. Mark Turpel said what was before the Council today was forecasts of how many people to accommodate by the year 2017. He noted that Ms. Kellington talked about allocations, in no way did this ordinance speak to allocations. There were allocations at the local jurisdictions that would be discussed at TPAC . In regard to the forecast itself, this was an econometric model and driven by estimates of sector by sector analysis of jobs that would be available at that time. He noted that rounding to the nearest 1000 was a great idea and he also thought that should be done. He mentioned that the numbers before Council today would not be incorporated into comprehensive plans.

Councilor Naito said the difficulty she saw was that the forecast may be based on historical trends and what Council was trying to do was to do things completely differently. She felt adopting these forecasts now would be perpetuating the use of historical trends. She suggested using a shorter projection time.

Presiding Officer Kvistad said that was one of the big decisions before Council.

Councilor McLain said to that issue, Mr. Turpel did an excellent job explaining the difference between this ordinance and the actual allocated numbers that would be coming before Council. She said the econometric model was knocking backwards as it had both historic and prospective information such as possible jobs. She felt it was a forward look and not just a historic past. It was different than the allocations that TPAC would be looking at in the future.

Councilor Morissette said he had some concerns at the committee, he thought it was good to move ahead slowly.

Presiding Officer Kvistad continued the item with an open motion and second to next week's agenda for further discussion and possible action.

Vote: The vote on the amendment and the main motion were delayed to the next week's Council meeting.

7.2 **Ordinance No. 97-719A,** Amending the FY 1997-98 Budget and Appropriations Schedule by Transferring .50 FTE from the Office of Citizen Involvement and .50 FTE from the Growth Management Department to the Office of Public and Government Relations in the Support Services Fund to Provide Additional MPAC and MCCI Committee Support, Modifying the Funding Source of the Position, and Declaring an Emergency.

Motion: **Councilor McLain** moved to adopt Ordinance No. 97-719A.

Seconded: **Councilor Washington** seconded the motion.

Discussion: **Councilor McLain** said the summary on the staff report explained the intent of this ordinance. She said the Executive Officer recommended adoption of this ordinance and it had passed out of committee.

Councilor McFarland supported the ordinance and spoke of its importance. She urged support.

Presiding Officer Kvistad opened a public hearing on Ordinance No. 97-719A.

Kay Durtchi, MCCI President, urged the Council to vote yes and stated the need for staffing the MCCI.

Presiding Officer Kvistad closed the public hearing.

Vote: The vote was 6 aye/ 0 nay/ 0 abstain. The motion passed unanimously of those present.

7.3 **Ordinance No. 98-721A,** For the Purpose of Amending Ordinances No. 96-647C and 97-715B to Revise Title 6 Recommendations and Requirements for Regional Accessibility.

Motion: **Councilor McLain** moved to adopt Ordinance No. 98-721A.

Seconded: **Councilor Washington** seconded the motion.

Discussion: **Councilor McLain** reviewed the Ordinance for the Council. She recommendation passage of the ordinance although she had deep concerns about the street areas and striped bike lanes.

Councilor Morissette said he had major concerns about so much emphasis in this document being on alternative modes of transportation. He believed the congestion this plan called for would upset people very much. For example, Level F represented 2-3 hours a day when 13 mph would be a maximum speed on the highways. He said that would not be acceptable by citizens who mostly travel by automobile.

Presiding Officer Kvistad opened a public hearing on Ordinance No. 98-721A. There being nobody to speak, Presiding Officer Kvistad closed the public hearing.

Presiding Officer Kvistad said Councilor Morissette spoke very eloquently to one of his concerns.

Councilor McLain closed by saying that this had been through regional review and those cities and counties had some concerns about it. Some of these amendments were to help with those issues and help keep parallel to the Regional Framework Plan. She felt those concerns had been addressed and this would take care of the needs of all of the communities.

Vote: The vote was 4 aye/ 2 nay/ 0 abstain. The motion passed with Councilor Morissette and Presiding Officer Kvistad voting no.

7. RESOLUTIONS

7.1 **Resolution No. 97-2587,** For the Purpose of Confirming the Appointment of Elaine Wilkerson to the Position of Director of the Growth Management Department.

Motion: **Councilor Morissette** moved to adopt Resolution No. 97-2587.

Seconded: **Councilor McFarland** seconded the motion.

Discussion: **Councilor Morissette** said there had been discussion in committee and they felt Ms. Wilkerson brought a lot of experience to this incredibly difficult position. He urged an aye vote.

Councilor Washington agreed and urged approval.

Presiding Officer Kvistad said he concurred.

Vote: The vote was 6 aye/ 0 nay/ 0 abstain. The motion passed unanimously of those present.

7.2 **Resolution No. 97-2588,** For the Purpose of Appointing Members to the Water Resources Policy Advisory Committee.

Motion: **Councilor McLain** moved to adopt Resolution No. 97-2588.

Seconded: **Councilor Naito** seconded the motion.

Discussion: **Councilor McLain** reviewed the resolution. She urged approval of Michael Reed from Clackamas County Utilities, Gregory Robart from Oregon Department of Fish and Wildlife, Becky Krieg from Portland Bureau of Environmental Services, Bill Fujii as an alternate for the Oregon Water Resources Department, and Ella Whelan as alternate for Clackamas County Utilities. She said these people had been appointed by their agencies to serve on the committee.

Vote: The vote was 6 aye/ 0 nay/ 0 abstain. The motion passed unanimously.

7.3 **Resolution No. 98-2593,** For the Purpose of Confirming the Appointment of James E. Diamond, Jr. and John F. Fryer to the Investment Advisory Board.

Motion: **Councilor McFarland** moved to adopt Resolution No. 98-2593.

Seconded: **Councilor Washington** seconded the motion.

Discussion: **Councilor McFarland** said she was very comfortable with having them on the advisory board for investment. She urged an aye vote.

Vote: The vote was 6 aye/ 0 nay/ 0 abstain. The motion passed unanimously of those present.

7.4 **Resolution No. 98-2598,** For the Purpose of Authorizing the Release of RFQ #97R-48-REM for Analytical Laboratory Services.

Motion: **Councilor McFarland** moved to adopt Resolution No. 98-2598.

Seconded: **Councilor Washington** seconded the motion.

Discussion: **Councilor McFarland** reviewed the resolution and the requirements it met. She urged its passage. She asked Mr. Cooper if they needed to confirm.

Mr. Cooper, Legal Counsel, said in the resolution the Council was authorizing the Executive Officer to execute a contract with the most qualified and cost effective proposer. He said any appeal would come to Council.

Councilor McFarland urged an aye vote.

Vote: The vote was 6 aye/ 0 nay/ 0 abstain. The motion passed unanimously of those present.

7.5 **Resolution No. 98-2601,** For the Purpose of Filling a Vacancy on the Traffic Relief Options Task Force.

Motion: **Councilor McLain** moved to adopt Resolution No. 98-2601.

Seconded: **Councilor Washington** seconded the motion.

Discussion: **Councilor McLain** said this would fill a vacancy on the Traffic Relief Options Task Force with Albert Bullier, Jr., if confirmed today.

Vote: The vote was 6 aye/ 0 nay/ 0 abstain. The motion passed unanimously.

7.6 **Resolution No. 98-2605,** For the Purpose of Authorizing the Auditor to Release a Request for Proposals and Execute a Contract for Independent Audit Services.

Motion: **Councilor McFarland** moved to adopt Resolution No. 98-2605.

Seconded: **Councilor McLain** seconded the motion.

Discussion: **Councilor McFarland** said this would give the auditor permission to go ahead with RFPs for independent auditor services which was required by the state. She urged an aye vote.

Councilor Morissette asked if this was a request to raise the dollars by 14%. He felt it was important to follow the budget.

Ms. Alexis Dow, Metro Auditor, said the 14% was actually an error. This resolution asked for permission to go out for a three year contract. They took the figure from the previous resolution 3 years ago and increased it by 10% which was 3% compounded over the 3 years.

Councilor Morissette said his basic disagreement was that he was concerned about the current budget not being able to meet it.

Ms. Dow pointed out that they were under contract right now, this expired in March 1998. She had increased the percentage with an emphasis to price but it was a competitive market and she would get the best price she could.

Councilor McLain said that they had asked similar questions at committee. Ms. Dow was unable to attend the meeting and her assistant answered the question for them that it was a reasonable cap.

Presiding Officer Kvistad asked if the error was in the staff report and not the document.

Councilor Morissette said the percent was not nearly as important as the fact that conflicting priorities with Growth Management and other things. He said the problem was not that we would not get our money's worth. He felt the budget should be followed and he would not be so flexible in allowing the request.

Vote: The vote was 5 aye/ 1 nay/ 0 abstain. The motion passed with Councilor Morissette voting no.

Council Meeting was recessed and Contract Review Board was convened.

8. CONTRACT REVIEW BOARD

8.1 **Resolution No. 98-2591,** For the Purpose of Extending the Current Contracts for the Metro 401(k) Salary Savings Plan with William M. Mercer, Inc. (Recordkeeper) and Northwestern Trust (Trustee) to Complete Conversion to the Vanguard Group.

Motion: **Councilor Morissette** moved to adopt Resolution No. 98-2591.

Seconded: **Councilor McFarland** seconded the motion.

Discussion: **Councilor Morissette** said that Vanguard was an excellent company and urged support.

Councilor McFarland said she agreed.

Presiding Officer Kvistad said he knew how hard Andy Cotugno and his group worked for this and thanked the team for their hard work.

Vote: The vote was 6 aye/ 0 nay/ 0 abstain. The motion passed unanimously of those present.

Presiding Officer Kvistad closed the Contract Review Board and reconvened the Metro Council Meeting.

9. COUNCILOR COMMUNICATION

None.

10. ADJOURN

There being no further business to come before the Metro Council, Presiding Officer Kvistad adjourned the meeting at 3:45 p.m.

Prepared by,

Chris Billington
Clerk of the Council

Document Number	Document Date	Document Title	TO/FROM	RES/ORD
021298c-01	2/12/98	"Please insert the following language in Ordinance No. 97-710 Coordinated 2017 Population Forecast for use in Maintaining and Updating Comprehensive Plans"	TO: Metro Council FROM: Councilor McFarland	Ordinance No. 97-710
021298c-02	2/12/98	"Questions Concerning Ordinance No. 97-710, Coordinated 2017 Population Forecast for use in Maintaining and Updating Comprehensive Plans."	TO: Metro Council FROM: Unknown	Ordinance No. 97-710

Agenda Item Number 6.1

Ordinance No. 98-724, For the Purpose of Adopting the Annual Budget for Fiscal Year 1998-99, Making Appropriations, Creating Funds, Levying Ad Valorem Taxes, Authorizing Interfund Loans, and Declaring an Emergency.

First Reading and Public Hearing

Metro Council Meeting
Thursday, February 19, 1998
Council Chamber

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF ADOPTING THE ANNUAL BUDGET FOR FISCAL YEAR 1998-99, MAKING APPROPRIATIONS, CREATING FUNDS, LEVYING AD VALOREM TAXES, AUTHORIZING INTERFUND LOANS, AND DECLARING AN EMERGENCY	ORDINANCE NO. 98-724 Introduced by Mike Burton, Executive Officer

WHEREAS, the Multnomah County Tax Supervising and Conservation Commission held its public hearing on the annual Metro budget for the fiscal year beginning July 1, 1998, and ending June 30, 1999; and

WHEREAS, recommendations from the Multnomah County Tax Supervising and Conservation Commission have been received by Metro (attached as Exhibit A and made a part of the Ordinance) and considered; now, therefore,

THE METRO COUNCIL ORDAINS AS FOLLOWS:

1. The "Fiscal Year 1998-99 Metro Budget," in the total amount of THREE HUNDRED EIGHTY-NINE MILLION, NINTEY-NINE THOUSAND, FOUR HUNDRED SEVENTY-THREE ($389,099,473) DOLLARS, attached hereto as Exhibit B, and the Schedule of Appropriations, attached hereto as Exhibit C, are hereby adopted.

2. The Metro Council does hereby levy ad valorem taxes, as provided in the budget adopted by Section 1 of this Ordinance, at the rate of $0.0968 per thousand dollars of assessed value for Zoo operations and in the amount of NINETEEN MILLION TWO HUNDRED SIXTY-SEVEN THOUSAND THREE HUNDRED TWENTY-FIVE ($19,267,325) DOLLARS for general obligation bond debt, said taxes to be levied upon taxable properties within the Metro District for the fiscal year 1998-99. The following allocation and categorization subject to the limits of Section 11b, Article XI of the Oregon Constitution constitute the above aggregate levy.

SUMMARY OF AD VALOREM TAX LEVY

	Subject to the General Government Limitation	Excluded from the Limitation
Zoo Tax Base	$0.0968/$1,000	
General Obligation Bond Levy		$19,267,325

3. The Washington Park Parking Lot Fund is hereby created for the purpose of operating the parking lot at the Metro Washington Park Zoo. The sources of revenue for this fund shall be fees and other revenues attributable to the operations of the facility. In the event of the future elimination of this fund, remaining balances will be transferred to any successor fund or funds responsible for the operation of this facilitiy, or as the Metro Council shall direct.

4. An interfund loan not to exceed ONE HUNDRED THOUSAND DOLLARS ($100,000) is hereby authorized from the Zoo Operating Fund to the Washington Park Parking Lot Fund. The loan is anticipated to provide necessary cash flow for debt service payments on the Oregon Economic Development Department loan issued to fund parking lot renovation. The loan will be repaid in fiscal year 1999-2000 from the parking lot proceeds. Simple interest shall be paid on the loan amount from the date of draw based on Metro's monthly pooled investment yield as calculated by the Department of Administrative Services.

5. The MERC Renewal and Replacement Fund is hereby renamed the MERC Pooled Capital Fund. The purpose of the fund will be expanded to include non-general obligation bond funded capital projects as well as renewal and replacement needs for all MERC-operated facilities.

6. In accordance with Section 2.02.125 of the Metro Code, the Metro Council hereby authorizes personnel positions and expenditures in accordance with the Annual Budget adopted by Section 1 of this Ordinance, and hereby appropriates funds for the fiscal year beginning July 1, 1998, from the funds and for the purposes listed in the Schedule of Appropriations, Exhibit C.

7. Pursuant to Metro Code 2.04.026(b) the Council designated the contracts which have significant impact on Metro for FY 1998-99 and their designations as shown in Exhibit E, attached hereto.

8. The Executive Officer shall make the following filings as provided by ORS 294.555 and ORS 310.060:

a. Multnomah County Assessor
   1) An original and one copy of the Notice of Levy marked Exhibit D, attached hereto and made a part of this Ordinance.
   2) Two copies of the budget document adopted by Section 1 of this Ordinance.
   3) A copy of the Notice of Publication required by ORS 294.421.
   4) Two copies of this Ordinance.

b. Clackamas and Washington County Assessor and Clerk
   1) A copy of the Notice of Levy marked Exhibit D.
   2) A copy of the budget document adopted by Section 1 of this Ordinance.
   3) A copy of this Ordinance.
   4) A copy of the Notice of Publication required by ORS 294.421.

9. This Ordinance being necessary for the health, safety, or welfare of the Metro area, for the reason that the new fiscal year begins July 1, 1998, and Oregon Budget Law requires the adoption of a budget prior to the beginning of the fiscal year, an emergency is declared to exist and the Ordinance takes effect upon passage.

ADOPTED by the Metro Council on this _____ day of June, 1998.

_____
Jon Kvistad, Presiding Officer

ATTEST:

Approved as to Form:

_____
Recording Secretary

_____
Daniel B. Cooper, General Counsel

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STAFF REPORT

CONSIDERATION OF ORDINANCE NO. 98-724 ADOPTING THE ANNUAL BUDGET FOR FISCAL YEAR 1998-99, MAKING APPROPRIATIONS, CREATING FUNDS, LEVYING AD VALOREM TAXES, AUTHORIZING INTERFUND LOANS, AND DECLARING AN EMERGENCY

Date: February 12, 1998 Presented by: Mike Burton
Executive Officer

FACTUAL BACKGROUND AND ANALYSIS

I am forwarding to the Council for consideration and approval my proposed budget for Fiscal Year 1998-99.

Council action, through Ordinance No. 98-724, is the next step in the process for the adoption of Metro's operating financial plan for the forthcoming fiscal year. Final action by the Council to adopt this plan must be completed by June 30, 1998.

Oregon Revised Statutes 294.635, Oregon Budget Law, requires that Metro prepare and submit Metro's approved budget to the Tax Supervising and Conservation Commission by May 15, 1998. The Commission will conduct a hearing during June 1998 for the purpose of receiving information from the public regarding the Council's approved budget. Following the hearing, the Commission will certify the budget to the Council for adoption and may provide recommendations to the Council regarding any aspect of the budget.

Once the budget plan for Fiscal Year 1998-99 is adopted by the Council, the number of funds and their total dollar amount and the maximum tax levy cannot be amended without review and certification by the Tax Supervising and Conservation Commission. Adjustments, if any, by the Council to increase the level of expenditures in a fund are limited to no more than 10 percent of the total value of any fund's appropriations in the period between Council approval and adoption.

Exhibits B and C of the Ordinance will be available at the public hearing on February 19, 1998.

EXECUTIVE OFFICER'S RECOMMENDATION

The Executive Officer recommends that the Council conduct a public hearing on Ordinance No. 98-724. The Executive Officer recommends that the Council schedule consideration of the proposed budget and necessary actions to meet the key dates as set out in Oregon Budget Law described above.

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Agenda Item Number 7.1

Ordinance No. 97-710, For the Purpose of Establishing a Coordinated 2017 Population Forecast for Use in Maintaining and Updating Comprehensive Plans.

Second Reading

Metro Council Meeting
Thursday, February 19, 1998
Council Chamber

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF ESTABLISHING A COORDINATED 2017 POPULATION FORECAST FOR USE IN MAINTAINING AND UPDATING COMPREHENSIVE PLANS	)))))	ORDINANCE NO 97-710 Introduced by Presiding Officer Kvistad

WHEREAS, Metro is the land use planning coordinating body under ORS 195.025(1) for the area within its jurisdictional boundaries; and

WHEREAS, Metro is the land use decision maker under ORS 268.390(3) for the regional urban growth boundary (UGB) and related comprehensive plan policies; and

WHEREAS, ORS 195.036 requires Metro as coordinating body to "...establish and maintain a population forecast for the entire area within its boundary for use in maintaining and updating comprehensive plans" which has been coordinated with cities and counties within its boundaries; and

WHEREAS, the 2017 population forecast for the Metro area is contained in the January 26, 1996 document entitled: "Population Forecast County-level;" and

WHEREAS, city, county and state representatives participated in the preparation and review of the 201/ population forecast; and

WHEREAS, the 2017 population forecast has been used by Metro in its five year review of the regional UGB as part of the analysis entitled "The Urban Growth Report" which has been reviewed by city and county representatives and MTAC and MPAC;

NOW, THEREFORE, THE METRO COUNCIL ORDAINS AS FOLLOWS:

Section 1 The 2017 population forecast portion of the "Population Forecast County-level" dated January 26, 1996 attached as Exhibit "A" and incorporated into this ordinance by

reference is hereby established as the coordinated population forecast for use in maintaining and updating comprehensive plans inside Metro's jurisdictional boundary, including the regional UGB and related policies.

Section 2 The Findings of Fact demonstrating compliance with ORS 195.036 and statewide land use Goal 2 are attached as Exhibit "B" and incorporated by reference into this ordinance.

ADOPTED by the Metro Council this _____ day of _____ 1998.

_____
Jon Kvistad, Presiding Officer

ATTEST:

_____
Recording Secretary

Approved as to Form:

_____
Daniel B. Cooper, General Counsel

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Population Forecast
County-level
(Clackamas, Multnomah, Washington, and Clark counties)

Exhibit A

	Population Forecast					
	Multnomah	Clackamas	Washington	Clark	Tri-County	Region
1990	**583,887**	**278,850**	**311,554**	**238,053**	**1,174,291**	**1,412,344**
1991	600,000	288,700	328,500	250,300	1,217,200	1,467,500
1992	605,000	294,500	340,000	257,500	1,239,500	1,497,000
1993	615,000	302,000	351,000	269,500	1,268,000	1,537,500
1994	620,000	305,500	359,500	280,800	1,285,000	1,565,800
1995	**624,049**	**312,590**	**370,021**	**290,440**	**1,306,660**	**1,597,100**
1996	631,919	318,578	379,803	294,676	1,330,301	1,624,976
1997	640,311	325,035	390,640	300,111	1,355,987	1,656,098
1998	650,400	331,897	402,318	306,444	1,384,615	1,691,060
1999	659,605	338,648	413,553	313,213	1,411,806	1,725,020
2000	**667,344**	**345,031**	**424,254**	**320,071**	**1,436,629**	**1,756,700**
2001	673,916	350,916	434,157	326,741	1,458,989	1,785,730
2002	680,453	356,739	444,047	333,781	1,481,239	1,815,020
2003	687,094	362,636	454,408	341,155	1,504,138	1,845,293
2004	693,009	368,339	464,819	348,488	1,526,167	1,874,655
2005	**697,810**	**374,146**	**475,342**	**356,302**	**1,547,298**	**1,903,600**
2006	703,424	379,972	485,902	364,017	1,569,298	1,933,315
2007	709,170	385,815	496,732	372,041	1,591,717	1,963,758
2008	715,028	391,747	507,699	380,278	1,614,474	1,994,751
2009	720,414	397,497	518,668	388,413	1,636,578	2,024,991
2010	**725,949**	**403,363**	**529,763**	**396,824**	**1,659,076**	**2,055,900**
2011	731,491	409,243	540,800	405,446	1,681,534	2,086,980
2012	737,367	415,297	552,241	414,356	1,704,904	2,119,260
2013	742,903	421,234	563,776	423,219	1,727,913	2,151,132
2014	747,619	426,826	574,574	431,834	1,749,019	2,180,853
2015	**752,265**	**432,410**	**585,536**	**440,589**	**1,770,211**	**2,210,800**
2016	756,908	438,060	596,658	449,508	1,791,626	2,241,134
2017	761,142	443,641	607,928	458,434	1,812,710	2,271,144
2018	765,316	449,205	619,507	467,526	1,834,028	2,301,554
2019	769,485	454,822	631,282	476,781	1,855,589	2,332,371
2020	**773,647**	**460,492**	**643,257**	**486,204**	**1,877,396**	**2,363,600**

	Annual Percentage Rate (APR) Growth					
	Multnomah	Clackamas	Washington	Clark	Tri-County	Region
1970-90	6.7%	1.7%	5.0%	4.7%	3.9%	3.6%
1990-95	1.3%	2.3%	3.5%	4.1%	2.2%	2.5%
1995-2017	0.9%	1.6%	2.3%	2.1%	1.5%	1.6%

History: 1990-94, CPRC Portland State University; OFM State of Washington
Forecast: 1995-2020, Regional Forecast

Metro Data Resource Center
source: *2015 Regional Forecast*,
January 1996, Table 13

Fcst4cty Ord #97-710
1/26/96

EXHIBIT B

Findings of Fact - 2017 Population Forecast

The record before the Metro Council for its adoption of the 2017 population forecast demonstrates coordination with affected local and state agencies as follows:

1. Based on 1994 population, a new 2015 forecast was developed and explained in a public memo to the Metro Council dated April 25, 1995.

2. An Economic Advisory Committee of expert economists and demographers was convened to review the new population forecasts on May 10, 1995. As indicated in the May 12, 1995 memo to Mike Burton, State Office of Economic Analysis economists and demographers participated.

3. The three county 2017 population forecast in the January 26, 1996 "Population Forecast County-level" is consistent with

(1) the 2017 population forecast in Long-Term Population and Employment Forecasts For Oregon" from the State Office of Economic Analysis dated January, 1997, and

(2) "County Population Forecasts" table dated January 1997.

4. City and county policy-makers and technical representatives reviewed the three-county population forecast with Metro economist staff at a May 28, 1995 joint meeting of the Metro Policy Advisory Committee (MPAC) and Metro Technical Advisory Committee (MTAC) prior to the January 26, 1996 report.

5. City and county planning directors and policymakers have reviewed the 2017 population forecast as it was used in the 1997 Urban Growth Report which they recommended for adoption by the Metro Council.

6. Prior to adoption of this ordinance, copies of the ordinance and an explanatory memorandum were distributed to MPAC and MTAC, including the Director of the Department of Land Conservation and Development.

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file 920

NOTICE OF PROPOSED AMENDMENT

This form must be received by DLCD at least 45 days prior to the final hearing
ORS 197.610 and OAR Chapter 660, Division 18

See reverse side for submittal requirements

Jurisdiction Metro

Date of Final Hearing October 9, 1997 Local File # _____

Has this proposal been previously submitted to DLCD? _____ Yes X No _____ Date

X Comprehensive Plan Text Amendment ___ Comprehensive Plan Map Amendment

___ Land Use Regulation Amendment ___ Zoning Map Amendment

___ New Land Use Regulation

Briefly summarize the proposal. Do not use technical terms. Do not write "See Attached."

This ordinance formally adopts the 2017 population forecast to comply with ORS 195.036(1995).

Plan Map Change From _____ to _____

Zone Map Change From _____ to _____

Location: _____ Acres Involved: _____

Specified change in Density: Current Density _____ Proposed Density _____

Applicable Goals: 14 Is an Exception proposed? _ Yes X No

Affected State or Federal Agencies, Local Governments or Special Districts: _____

Cities and counties in Metro, DLCD, Office of Economic Analysis

Local Contact: Larry Shaw Phone: 503-797-1532
Fax: 503-797-1792

Address: Metro, 600 NE Grand Avenue, Portland, OR 97232

DLCD File # _____ Date Rec'd _____ # Days Notice _____

STAFF REPORT

CONSIDERATION OF ORDINANCE NO. 97-710, FOR THE PURPOSE OF ESTABLISHING A COORDINATED 2017 POPULATION FORECAST FOR USE IN MAINTAINING AND UPDATING COMPREHENSIVE PLANS

Date: Nov. 25, 1997 Prepared by Michael Morrissey

Proposed Action: Ordinance No. 97-710 complies with state legislation by establishing and maintaining a population forecast for the entire area within its boundary for use maintaining and updating comprehensive plans.

Background: Based on an interpretation of a Land Use Board of Appeals decision, the 2017 Population forecast must be adopted separately from the Urban Growth Report. The 2017 population forecast will be used by cities and counties as they review their comprehensive plans. It is used in the Urban Growth Report, adopted by the Metro Council in October of 1997, and its creation has been coordinated with cities and counties as demonstrated in exhibit B.

A draft version of this ordinance was reviewed in the Growth Management Committee of this year, and it was sent to DLCD for notice on October 9, 1997.

GROWTH MANAGEMENT COMMITTEE REPORT

Ordinance No. 97-710, establishing a coordinated 2017 population forecast for use in maintaining and updating comprehensive plans.

Action Taken: Recommended for Council approval, by a vote of 3-0.

Existing Law: Oregon law requires Metro, as the land use decision maker for the urban growth boundary and related comprehensive plan policies, to establish and maintain a population forecast for the Metro area for use in maintaining and updating comprehensive plans. This population forecast must be "coordinated" with cities and counties within the boundary.

Issue Presented: This ordinance codifies Metro's 2017 population forecast as the state-mandated coordinated population forecast, based on findings of fact (Exhibit B) that, among other things, staff and elected officials from the region's cities and counties participated in its review.

Budget Impact: None.

Committee Discusssion: A concern was raised briefly by Councilor Morrisette that this language would set in stone population forecast numbers associated with individual cities. Larry Shaw confirmed that this ordinance only relates to the projected tri-county population figure for the year 2017.

Meg Bushman

02/05/98

Agenda Item Number 8.1

Resolution No. 98-2608, For the Purpose of Entering into a Multi-Year Contract with the Most Qualified Proposer by Authorizing Issuance of a Request for Proposals for an Urban Reserve Productivity Analysis.

Contract Review Board

Metro Council Meeting
Thursday, February 19, 1998
Council Chamber

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF ENTERING INTO A MULTI-YEAR CONTRACT WITH THE MOST QUALIFIED PROPOSER BY AUTHORIZING ISSUANCE OF A REQUEST FOR PROPOSALS FOR AN URBAN RESERVE PRODUCTIVITY ANALYSIS	))))))	RESOLUTION NO. 98-2608 Introduced by Mike Burton, Executive Officer

WHEREAS, the Metro Council adopted Resolution 97-2550A and Resolution 97-2583B concluding that there was not sufficient capacity within the current Metro urban growth boundary to accommodate the next 20 years of forecast growth; and

WHEREAS, the Metro Council found that 32,400 dwelling units and 2,900 jobs could not be accommodated with the current urban growth boundary even with anticipated changes to city and county zoning within the current urban growth boundary; and

WHEREAS, the Metro Council adopted Ordinance No. 96-655E designating 18,570 acres of urban reserves immediately outside the Metro urban growth boundary for future urban development and also designated about 4,100 acres of the adopted urban reserves as "first tier" or lands to be brought into the boundary first; and

WHEREAS state land-use goal 14 requires that any changes in urban growth boundaries be based on such factors as demonstrated need to accommodate long-range population growth, the need for housing and employment, the orderly and economic provision of public facilities and services and compatibility of the proposed urban uses with nearby agricultural activities; and

WHEREAS a need now exists to analyze how the need for additional dwelling units and jobs will be accommodated by converting urban reserve land to additions to the urban growth boundary; now, therefore

BE IT RESOLVED, that the Metro Council acting as the Contract Review Board hereby approves the issuance of a request for proposals as attached and authorizes the Executive Officer to execute a multi-year contract with the most advantageous proposer to conduct an urban reserve productivity analysis.

ADOPTED by the Metro Council this _____ day of _____, 1998.

_____
Jon Kvistad, Presiding Officer

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Urban Reserve

Productivity Analysis

A Summary

(Revised 2/10/98)

Purpose To ~~understand the likely~~ determine the capacity of adopted Metro urban reserves sufficient to accommodate at least 32,400 dwelling units and 2,900 jobs. To prepare for Metro Urban Growth Boundary expansions. Work to be completed in phases. First tier urban reserves ~~for the~~ analyzed ~~first phase report, additional urban reserve land as needed~~ to evaluate their capacity to accommodate the urban growth need of 32,400 dwelling units and 2,900 jobs.

Work Elements Three basic tasks:

Task 1 – buildable land estimate – Task includes consideration of several variables used in Metro's *Urban Growth Report* including:

- Unbuildable lands (such as wetlands, floodplains, steep slopes)
- Gross-to-Net (lands for future roads, parks, schools, etc.)
- Underbuild (assuming current 2040 Growth Concept designations with a reduction factor to account for 'allowed' versus actual densities built)
- Ramp-up (the time needed for local jurisdictions to plan and provide services to the lands)
- Redevelopment and Infill (consideration of existing rural development or parcelization that may or may not lend itself to urban development) and
- Farm Use Assessment (consideration of lands with exclusive farm use designation zoning which could continue to receive farm use assessment and possibly not be available for development near term)

The report would document the estimated growth capacity in urban reserves. If sufficient capacity is not found in the First Tier urban reserves, the consultant shall recommend additional urban reserve lands to be analyzed consistent with criteria to be determined by the Metro Council. Also included would be recommendations of possible locations and alternative locations for jobs and higher density residential consistent with the current 2040 Growth Concept.

Task 2 – Public facilities and services costs and timing – After first tier lands are analyzed for sufficient capacity and additional urban reserves are recommended for analysis if necessary, this task starts with review of the existing utility feasibility report for sewer, water and stormwater ~~(but applied to the lands actually approved by Council),~~ then adds road, park, school and other public facility costs. Any logical service additions to adjacent urban reserves would be noted.

Task 3 – Funding report – Starts with existing Metro preliminary analyses and as opportunities and obstacles to funding are found, the report would list these as they relate to urban reserves generally, to specific jurisdictions or to specific urban reserve areas.

Process – Metro request for proposal process, to be approved by Council, member of Metro Council to sit on consultant selection committee.

Timeline – Given State deadline of one-half of the needed lands to be brought into the Metro UGB by the end of 1998, this project will need to be rapidly completed. The Scope of Work ~~will be~~ was considered by the Growth Management Committee on February 3 and the full RFP will be considered by the Metro Council on February ~~12 or~~ 19. Upon Metro Council approval, consultants will have 2 weeks to prepare a proposal. Interviews will be conducted within ~~1~~ one week following ~~of~~ deadline and selection ~~to~~ will occur ~~immediately~~ shortly thereafter ~~afterward~~.

****

Request for Proposal
Urban Reserve Productivity Analysis
(Revised 2/10/97)

~~Deletions~~ and Additions as noted

I. Introduction

The Growth Management Services Department of Metro, a metropolitan service district organized under the laws of the State of Oregon and the 1992 Metro Charter and located at 600 N.E. Grand Avenue, Portland, OR 97232-2736, is requesting proposals for a consultant to complete an urban reserve productivity analysis. Proposals will be due no later than ~~two weeks after Metro Council approval (now estimated to be February 12th or 19th, 1998).~~ Thursday, March 5 at 4:30 pm.

The Metro Council determined that there was not sufficient capacity within the current Metro Urban Growth Boundary (UGB) to accommodate the next 20 years of forecast growth. They determined in 1997 that additional capacity to accommodate about 32,400 additional dwelling units and 2,900 jobs would need to be accomplished through expansion of the Metro UGB. As sufficient capacity is required by both Metro Code and State law, t~~T~~his work will ~~establish~~ estimate the "productivity", or the capacity of Metro's urban reserves to accommodate future urban growth. This productivity analysis will provide a basis for Metro Council decisions about how much of the urban reserves ~~(first tier and others if necessary)~~ will be needed to accommodate a 20 year UGB by adde~~d~~ ing to the Metro urban growth boundary in 1998 and 1999. This work will be performed in phases of urban reserve land areas, the first phase is the subject of this proposal and concerns first tier urban reserves. This analysis will also help Metro address State land use requirements as well as Metro Code provisions concerning urban growth boundary expansion.

Consultants are requested to provide a description of their qualifications and a proposal outlining their proposed methodology for completing the scope of work described below. The proposal should also include a timeline for completion of each task and the expected date for delivering products.

II. Background and History

By state law, Metro is responsible for managing the urban growth boundary (UGB) for the metropolitan area. The UGB was first established by the directly-elected Metro Council in 1979 and at the time, included an area of about 360 square miles, 24 cities and portions of three counties. In addition, Metro is responsible for periodic review of the regional UGB to ensure that sufficient growth capacity remains. Overall reviews (called legislative reviews) were completed by the Metro Council about every 5-7 years during the past 19 years. In the review completed in 1992, the Metro Council found that a 20-year land supply was still available within the current UGB. However, there were individual parcels which were added to the Metro boundary over the past 19 years, due to consideration of

site-specific or need related factors. Since 1979, a little over 4 square miles of land were added through individual parcel~~;~~ property owner requests to the Metro Council.

In March 1997, the Metro Council, designated 18,570 acres of urban reserves immediately outside the Metro urban growth boundary for future urban development, as required by LCDC's Urban Reserve Rule. These urban reserves were designated to protect the farmlands outside of the current UGB and urban reserves by designating primary nonfarm lands. This approach also provided for more efficient future urban development within the current UGB and in urban reserves as they are urbanized. Urban reserves ~~would~~ may be added to the Metro UGB as need for additional capacity was determined by the Metro Council ~~in future UGB reviews~~. The Council also designated about 4,100 acres of the adopted urban reserves as 'first tier', or lands to be first brought into the boundary. The Metro Council amended its code to ~~provide for~~ require planning of urban reserves. The amended Code required an urban reserve plan for parcels 20 acres and larger before they could be brought into the Metro UGB. Urban reserve plans must include consideration of how public facilities, such as schools, water, sewer and parks could be provided to urban reserve areas. Finally, the Metro Council also provided a means for considering ~~other~~ non-first tier urban reserves for first inclusion if additional special need criteria ~~could be shown to be~~ are met.

The Metro Council spent two years considering several staff reports and updates (Urban Growth Reports, Housing Needs Analyses and an Urban Growth Baseline Data Report), public hearing testimony and over 10,000 pages of records. In December, 1997, the Council concluded that there was not sufficient capacity within the current Metro urban growth boundary to accommodate the next twenty years of forecast growth (to the year 2017). They found that 32,400 dwelling units and 2,900 jobs could not be accommodated within the current UGB even with anticipated changes to city and county zoning within the current UGB. These c~~C~~hanges to city and county zoning by the 24 cities and for the urban portions of the 3 counties ~~is~~ are now underway by the local agencies consistent with Metro's 2040 Growth Concept and Metro's Urban Growth Management Functional Plan.

~~Consideration of the additional capacity that these changes would allow were made part of the Metro Council decision about the growth capacity within the current UGB~~. Accordingly, the Metro UGB ~~will~~ needs to be expanded to accommodate the 32,400 homes and 2,900 jobs. State law requires that at least one-half of the need would have to be accommodated by the end of 1998 and all of the need by the end of 1999. State law also requires that first priority for UGB expansion is land that is designated as an urban reserve; any other lands are a lesser priority for immediate inclusion.

Another of the primary State requirements is ~~satisfaction of~~ compliance with Goal 14. It requires:

"Establishment and change of the boundaries shall be based upon considerations of the following factors:

1. Demonstrated need to accommodate long-range urban population growth requirements consistent with LCDC goals;
2. Need for housing, employment opportunities, and livability;

3.Orderly and economic provision for public facilities and services;
4.Maximum efficiency of land uses within and on the fringe of the existing urban area;
5.Environmental, energy, economic and social consequences;
6.Retention of agricultural land as defined, with Class I being the highest priority for retention and Class VI the lowest priority; and,
7.Compatibility of the proposed urban uses with nearby agricultural activities. "

Factors 1 and 2 have been assessed and the need for additional housing and jobs was established by the Metro Council decision in December, 1997. Designation of the urban reserves were based on data relating to factors 3 through 7 which indicate the appropriate location of any UGB expansion. What remains to be done is documentation of how much and where among the already designated urban reserves land should be added to the Metro UGB. This begins with the 'first tier' lands, ~~but could include additional urban reserve lands, as needed.~~

In summary, the Metro Council has concluded to date:

A There is a need to expand the Metro UGB to accommodate 32,400 dwelling units and 2,900 jobs, bringing the Metro UGB back into conformance with requirements to accommodate the next 20 years of forecast urban growth.

B Urban reserves, including those portions which should be brought in first ('first tier') have been designated.

However, these two decisions were made independently by the Metro Council. That is, need (A, above) was determined by measuring dwelling units and jobs, while urban reserve lands (B, above) are geographic locations and are measured in acres. Now, a comparison and analysis must be completed to establish how the need will be accommodated by converting urban reserve land to additions to the UGB. This analysis of capacity and other data addressing State and Metro requirements for UGB boundary expansions are the focus of this scope of work.

III. Proposed Scope of Work

Determination of the capacity of urban reserves to accommodate urban growth include completion of the following three tasks:

Task 1. Detailed buildable land estimate
This work task will provide analysis of the amount of urban development that could be accommodated within ~~an urban reserve or group of urban reserve areas within~~ the first tier of the urban reserves and additional urban reserves, as needed to ensure that at least all of their capacity to accommodate ~~needed (~~32,400 dwelling units and 2,900 jobs~~) can be accommodated~~ and the work will include providing the Council with recommendations for further analysis if all the ned cannot be met in the first tier. It will identify a methodology and assumptions based on consistency with the buildable land variables listed in Metro's .

Urban Growth Report. For example, the estimate should consider discounting all unbuildable lands including steep slopes, wetlands, floodplains, critical stream corridors (consistent with Title 3 principles). Other factors such as gross-to-net, underbuild, ramp-up, redevelopment and infill and farm use assessment should be addressed in the methodology. Some of the assumptions and methods used by Metro for the Urban Growth Report, Buildable Land Analysis will need to be adjusted to account for the timing of development and the ~~in~~ rural nature of the urban reserves. For example, some of the existing rural development within the urban reserves are not likely to have development, redevelopment or infill potential within the next 10-15 years (This would be estimated based on such considerations as parcel size and/or configuration, existing structure value, etc.).

From these data, and based on the Metro 2040 Growth Concept designations general locations ~~supplied~~ adopted by the Metro Council, an estimate of the productivity of the lands to accommodate dwelling units and jobs will be obtained. Locations of possible areas for employment and higher density residential consistent with the Metro 2040 Growth Concept will also be provided by the consultant. For example, the Metro 2040 Growth Concept recognizes that in portions of Clackamas County within the Metro UGB there are many more homes than jobs. The Metro 2040 Growth Concept has an employment center located on the map, but more specific locations or more specific area choices for locating jobs is not included in the Growth Concept. The consultant is asked to provide recommendations as to how these jobs could be accommodated. Likewise, there are general locations for town centers included in the Metro 2040 Growth Concept within some of the urban reserves. More specific possible locations for the mixed use and higher density residential for these centers also should be provided by the consultant.

Process: The consultant will complete a methodology and set of assumptions which will be reviewed by Metro. After approval to proceed from the Metro representative, the consultant shall complete a draft analysis of First Tier Urban Reserves and provide to Metro. If the identified capacity is less than 32,400 dwelling units and 2,900 jobs, the consultant shall prepare recommendations for additional urban reserves to be analyzed for productivity consistent with criteria approved by Metro Council. The proposal shall include the consultant's price for analysis of each of the eight areas shown on the attached map. Consultant prices shall be listed as follows

Area	First Tier(If any)	Balance of Urban Reserve Area
A	$	$
B	"	"
Etc.	etc.	etc.

The consultant, in preparing prices, should assume that task 2 work elements would not be commenced until sufficient capacity is identified. The consultant should also not asssume that all of the urban reserve areas would be analyzed.

Products: The consultant will be responsible to deliver a report that includes: a) a description of the methodology and assumptions used; b) estimates of the number of dwelling units and jobs that could reasonably be accommodated in an urban reserve or group of urban reserves during the 20 year time horizon; c) an estimate of the amount of lands not likely to be available for development consistent with the variables listed above for each urban reserve or group of urban reserves. d) a ranking of the estimated urban growth efficiency for each first tier urban reserve or group of urban reserves based on the above data; e) maps of a suitable scale showing where the buildable lands are estimated to be located, f) electronic copies of all analysis and mapping in formats compatible with Metro Data Resource Center hardware and software, ~~and~~ g) maps, paper and electronic, of recommended boundaries of jobs and higher density residential and h) recommendations for additional urban reserve areas to analyze, consistent with Metro Council criteria, if a capacity of at least 32,400 dwelling units and 2,900 jobs is not found in the First Tier Urban Reserves.

The consultant will also provide Metro with their hourly rate, so that if additional presentations to other groups is required over and above the contract, the cost of additional presentations could be projected and could be authorized consistent with Metro contract provisions.

Task 2. Comparison of public facilities, costs and timing
This analysis will be based on task 1 data and shall update earlier work completed for the urban reserve study areas (with similar, but in some cases significantly different geographic boundaries than the adopted urban reserves) analysis concerning provision of water, sewer and stormwater facilities at urban levels of service. In addition, this task would include comparisons of the economic provision of roads, schools, open space and fire facilities. Also, the likely capability and speed of providing the facilities shall be estimated by the consultant to allow gauging the timeliness of UGB expansion for any urban reserve or group of urban reserves. This task will not be initiated until task 1 has identified enough urban reserve land sufficient to at least accommodate 32,400 dwelling units and 2,900 jobs.

Process: This would begin by reviewing the Utility Feasibility Analysis for Metro Urban Reserve Study Areas. The methodology and assumptions to be used would be prepared and presented to Metro. After review by Metro, the consultant would canvass all service providers who do serve or would likely serve the urban reserve areas. For transportation, this would also include regional transportation model runs based on draft productivity estimates of the transportation system additions necessary to accommodate the growth. While Metro staff would be responsible for running the transportation model, the consultant would work with Metro to coordinate with local government officials about the likely improvements and

would be responsible for relative cost comparisons. That is, detailed site specific costs are not requested because of preparation costs, but the relative cost to serve each urban reserve area or groups of urban reserve areas for comparison purposes are needed. This type of relative cost comparison would also be produced for the other listed public facilities and services.

Products: a) a written description of methodology and assumptions, b) results of canvass, c) a written report based on the approved methodology comparing the cost and timing concerning the provision of public facilities and services for urban reserve areas and noting any areas where sanitary sewer service provision to other lands in adjacent urban reserves may be feasible.

Task 3. Funding Analysis

This task is intended to report on methods of providing sufficient funds to finance the needed public facilities and services identified in task 2. Expansion of the Metro UGB will require extension of new urban level services or expansion of existing rural level services to urban levels. This work would begin with existing Metro preliminary analyses and as opportunities and obstacles to funding may be found in completing task 2, the report would list these as they relate to urban reserves generally, to specific jurisdictions or to specific urban reserve areas.

Process: The consultant would review existing Metro documents concerning funding methods, look for opportunities and obstacles as task 2 is completed and prepare a report with findings and recommendations.

Products: a) a report describing alternative funding methods.

IV. Qualifications and Experience

Proposers shall have the following qualifications:

A. Extensive experience with: 1. the Oregon land use planning system, especially with State planning laws addressing the Metro region, 2. buildable land inventories and 3. public facility planning and implementation

B. Experience managing a fast paced time-sensitive project;

C. Demonstrated skill with analyzing and presenting facts to the public, elected officials and other planners.

V. Project Administration

Mark Turpel, Senior Program Supervisor, Growth Management Services Department, will be the primary contact for the project.

VI. Proposal Instructions

A. Submission of Proposals

Five copies of the proposal shall be furnished to Metro, addressed to:

Mark Turpel
Growth Management Services Department
Metro
600 NE Grand Avenue
Portland, OR 97232-2736

B. Deadline

Proposals will be due ~~two weeks after Metro Council approval (now slated for February 12 or 19th)~~ Thursday, March 5 Proposals will not be considered if received after ~~4:00~~ 4:30 p.m., ~~????~~, 1998.

C. RFP as Basis for Proposals

This Request for Proposals represents the most definitive statement Metro will make concerning the information upon which Proposals are to be based. Any verbal information which is not addressed in this RFP will not be considered by Metro in evaluating the Proposal. All questions relating to this RFP should be addressed to Mark Turpel at 503/797-1734. Any questions, which in the opinion of Metro, warrant a written reply or RFP amendment will be furnished to all parties receiving the RFP. Metro will not respond to questions received after ~~????~~ February 27, 1998.

D. Information Release

All proposers are hereby advised that Metro may solicit and secure background information based upon the information including references provided in response to this RFP. By submission of a proposal all proposers agree to such activity and release Metro from all claims arising from such activity.

E. Minority and Women-Owned Business Program

In the event that any subcontracts are to be utilized in the performance of this agreement, the proposer's attention is directed to Metro Code provisions 2.04.100 and 200.

Copies of that document are available from the Risk and Contracts Management Division of Administrative Services, Metro, Metro Regional Center, 600 N.E. Grand Avenue, Portland, OR 97232 or call 503/797-1717.

VII. Proposal Contents

The proposal should contain not more than ten (10) pages of written material (excluding biographies, brochures or writing samples that may be included in an appendix) describing the ability of the consultant to perform the work requested, as outlined below. The proposal should be submitted on recyclable, double-sided recycled paper (post consumer content). No waxed page dividers or non-recyclable materials should be included in the proposal.

A. Transmittal Letter: Indicate who will be assigned to the project, who will be project manager, and that the proposal will be valid for ninety (90) days.

B. Approach/Project Work Plan: Describe how the work will be done within the given timeframe and budget. Include a proposed work plan and schedule.

C. Staffing/Project Manager Designation: Identify specific personnel assigned to major project tasks, their roles in relation to the work required, percent of their time on the project, and special qualifications they may bring to the project. Include resumes of individuals proposed for this contract.

Metro intends to award this contract to a single firm to provide the services required. Proposals must identify a single person as project manager to work with Metro. The consultant must assure responsibility for any subconsultant work and shall be responsible for the day-to-day direction and internal management of the consultant effort.

D. Experience: Indicate how your firm meets the experience and qualifications requirements listed in Section IV of this RFP. List projects conducted over the past five years that involved services similar to the services required here. For each of these other projects, include the name of the customer contact person, his/her title, role on the project, and telephone number. Identify persons on the proposed project team who worked on each of the other projects listed, and their respective roles.

E. Cost/Budget: Present the proposed cost of the project and the proposed method of compensation. List hourly rates for personnel assigned to the project, total personnel expenditures, support services, and subconsultant fees (if any). Requested expenses should also be listed. Metro has established a budget of an amount not to exceed $55,000 for phase 1 of this project.

F. Exceptions and Comments: To facilitate evaluation of proposals, all responding firms will adhere to the format outlined within this RFP. Firms wishing to take exception to, or comment on, any specified criteria with this RFP are encouraged to document their concerns in this part of their proposal. Exceptions or comments should be succinct, thorough and organized.

VIII. General Proposal/Contract Conditions

A. Limitation and Award: This RFP does not commit Metro to the award of a contract, nor to pay any costs incurred in the preparation and submission of proposals in anticipation of a contract. Metro reserves the right to waive minor irregularities, accept or reject any or all proposals received as the result of this request, negotiate with all qualified sources, or to cancel all or part of this RFP.

B. Billing Procedures: Proposers are informed that the billing procedures of selected firm are subject to the review and prior approval of Metro before reimbursement of services can occur. Contractor's invoices shall include an itemized statement of the work done during the billing period, and will not be submitted more frequently than once a month. Metro shall pay Contractor within 30 days of receipt of an approved invoice.

C. Validity Period and Authority: The proposal shall be considered valid for a period of at least ninety (90) days and shall contain a statement to that effect. The proposal shall contain the name, title, address and telephone number of an individual or individuals with authority to bind any company contacted during the period in which Metro is evaluating the proposal.

D. Conflict of Interest: A Proposer filing a proposal thereby certifies that no officer, agent or employee of Metro has a pecuniary interest in this proposal; that the proposal is made in good faith without fraud, collusion, or connection of any kind with any other Proposer for the same call for proposals; the Proposer is competing solely in its own behalf without connection with, or obligation to, any undisclosed person or firm. Proposer also certifies that it has no financial interest in any parcel of property that is the subject of the work product described herein, nor any contractual relationship with any third party related to any such parcel.

IX. Evaluation of Proposals

A. Evaluation Procedure: Proposals received that conform to the proposal instructions will be evaluated. The evaluation will take place using the evaluation criteria identified in the following section. Interviews may be requested prior to final selection of one firm.

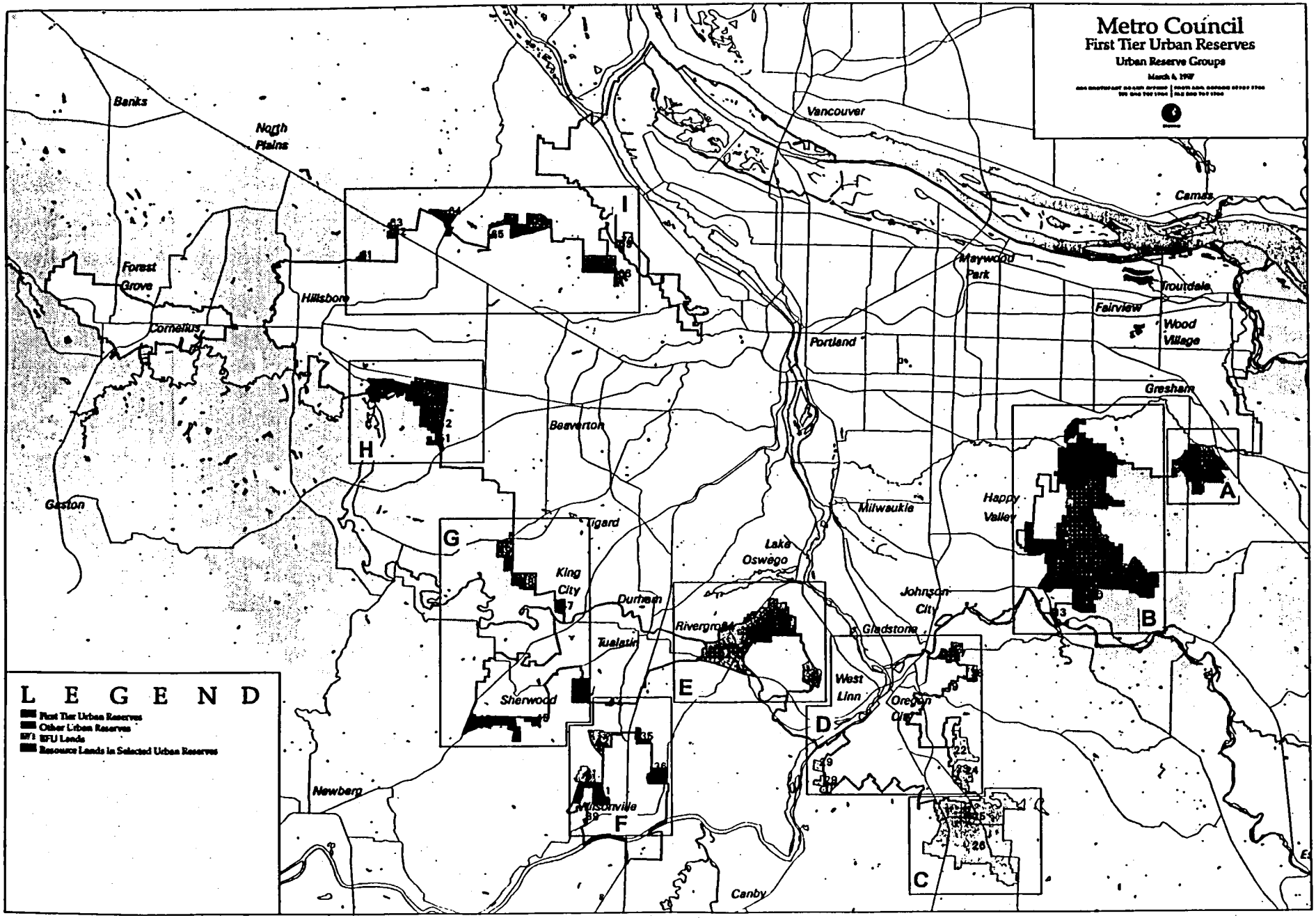
B. Evaluation Criteria: This section provides a description of the criteria which will be used in the evaluation of the proposals submitted to accomplish the work defined in the RFP.

	Points
Approach to project and demonstrated understanding of project objectives as reflected in the proposed work plan.	30
Professional qualifications and demonstrated experience in communications and writing.	45
Budget and costs projections and commitment to meet schedule.	25
Total Possible Points	100

X. Notice to all Proposals -- Standard Agreement

The attached personal services agreement is a standard agreement approved for use by the Metro Office of General Counsel. This is the contract the successful proposer will enter into with Metro; it is included for your review prior to submitting a proposal.

2/10/98


Metro Council
First Tier Urban Reserves
Urban Reserve Groups
March 6, 1997
Banks
North Plains
Vancouver
Camas
Forest Grove
Hillsboro
Cornelius
Maywood Park
Troutdale
Fairview
Wood Village
Portland
Gresham
Beaverton
Gaston
Tigard
Milwaukie
Happy Valley
Lake Oswego
King City
Durham
Johnson City
Gladstone
Rivergrove
Tualatin
West Linn
Oregon City
Sherwood
Newberg
Wilsonville
Canby
A
B
C
D
E
F
G
H
I
LEGEND
First Tier Urban Reserves
Other Urban Reserves
EFU Lands
Resource Lands in Selected Urban Reserves

Staff Report

CONSIDERATION OF RESOLUTION NO. 98-2608 FOR THE PURPOSE OF ENTERING INTO A MULTI-YEAR CONTRACT WITH THE MOST QUALIFIED PROPOSER BY AUTHORIZING ISSUANCE OF A REQUEST FOR PROPOSALS FOR AN URBAN RESERVE PRODUCTIVITY ANALYSIS

Date: January 29, 1998 Presented by: Mark Turpel

FACTUAL BACKGROUND AND ANALYSIS

In 1997, the Metro Council concluded that there was not sufficient land capacity within the current urban growth boundary (UGB) to accommodate the next 20 years of forecast growth. The Council found that 32,400 dwelling units and 2,900 jobs could not be accommodated within the current UGB even with anticipated changes to city and county zoning that is now underway by local jurisdictions consistent with Metro's 2040 Growth Concept and Metro's Urban Growth Management Functional Plan. Accordingly, the UGB will need to be expanded to accommodate the 32,400 homes and 2,900 jobs.

State law requires that at least one-half of the need be accommodated by the end of 1998 and all of the need accommodated by the end of 1999. State law also requires that first priority for UGB expansion is land that is designated as urban reserve.

The Metro Council has designated 18,570 acres of urban reserves immediately outside the Metro UGB for future urban development. The Council also designated about 4,100 acres of the adopted urban reserves as "first tier", or lands to be brought into the boundary first.

An analysis should now be completed to document that sufficient capacity to fulfill the need will be accommodated by converting urban reserve land to additions to the UGB. This analysis will establish the "productivity", or the capacity of Metro's urban reserves to accommodate future growth. This productivity analysis will provide a basis for Metro Council decisions concerning how much of the urban reserves – first tier and others as necessary – will be added to the Metro UGB in 1998 and 1999. This analysis will also help Metro address state land-use requirements as well as Metro Code provisions concerning UGB expansion.

To conduct this analysis requires specialized technical expertise and staffing requirements beyond the capacity of department staff. The hiring of this expertise by contract is the most cost-effective method of acquiring these services.

The primary products expected from the consultant will include:

- A written analysis of the number of dwelling units and jobs that could reasonably be accommodated during the 20-year time horizon and a ranking of the estimated urban growth efficiency for each urban reserve or group of urban reserves.

- A written report comparing the costs and timing of providing public facilities and services including water, sewer, stormwater, roads, schools, open space and fire facilities for urban reserve areas.
- A report analyzing the opportunities and obstacles of providing sufficient funds to finance needed public facilities and services.

As this project is very time sensitive, we are recommending that the consultant selection consider how quickly a product could be produced as well as the consultant's expertise. For that reason we have not specified a timeline. We would like to see the work completed within a 3 to 4 month period if possible.

BUDGET IMPACT AND ANALYSIS

The budget for Phase 1 of the productivity analysis is for an amount not to exceed $55,000. Phase 1 includes all Tier One urban reserves or 4,100 acres. Sufficient funds exist in the department for this analysis. Should additional acres be needed to accommodate a 20-year land supply, additional funds exist to add to this contract.

EXECUTIVE OFFICER'S RECOMMENDATION

The Executive Officer recommends adoption of Resolution No. 98-2608.

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GROWTH MANAGEMENT COMMITTEE REPORT

For February 3, 1998

RESOLUTION NO. 98-2608, for the purpose of entering into a multi-year contract with the most qualified proposer by authorizing issuance of a request for proposals for an urban reserve productivity analysis.

Committee Action: The resolution was not prepared in time for a formal hearing. The subject matter of the request for proposals (RFP), however, was discussed extensively. Because of the urgency of the matter, the committee agreed to send the resolution directly to Council with some modifications.

Existing Law: Oregon law requires the Metro urban growth boundary (UGB) to accommodate 20 years of forecast urban growth. The Council has determined that our current UGB cannot support the forecast need of 32,400 dwelling units and 2,900 jobs. Accordingly, it is necessary to expand the UGB. Oregon law requires that 50% of this identified need be accommodated by an expansion of the UGB by Dec. 31, 1998. Further expansion of the UGB to accommodate the remaining 50% must be done by Dec. 31, 1999.

Issue Presented: A "productivity analysis" is needed to determine the capacity of the urban reserves to accommodate the forecast need for jobs and dwelling units. This productivity analysis will provide a detailed examination of each of the urban reserves in the first tier to determine the amount of urban development that could be accommodated and provide recommendations as to 2040 Growth Concept designations. This resolution allows Metro to issue an RFP to hire an outside consultant for this project.

Budget Impact: The contract amount would come from existing funds in the Growth Management Department. Because it is unclear how many acres of urban reserves will be needed to accommodate the forecast growth, an additional contract will be needed to evaluate the capacity of urban reserves beyond the first tier.

Committee Discussion: Committee members expressed concern over whether the consultant would be evaluating only first tier lands or all of the urban reserves or some combination. Councilor Morissette believe it will be cheaper to have the consultant evaluate all of the reserves at one time. Other committee members want the flexibility of a separate contract for urban reserves beyond the first tier, in case the consultant's work on the first tier lands is unsatisfactory. Questions were also raised about analyzing only some of the urban reserves outside of the first tier. Because of the public policy nature of determining which reserves come in, the committee felt that the consultant should not have the freedom to chose which reserves are analyzed beyond the first tier. Finally, Councilor Naito thought that analyzing acres beyond the first tier could have the unintended affect of raising citizen concerns about urban development in areas that, in fact, are unlikely to be opened for development any time in the near future.

Thus, the committee agreed that this RFP should specifically relate to analysis of only first tier urban reserves, but that the consultant may also recommend specific additional acres to evaluate if the first tier lands are insufficient to meet the forecast need. In this way, the Council will retain control over which lands beyond first tier are analyzed.

Meg Bushman
02/12/98

Agenda Item Number 9.1

Resolution No. 98-2607, For the Purpose of Authorizing the Executive Officer to Purchase Property in the Cooper Mountain Target Area.

EXECUTIVE SESSION HELD PURSUANT TO ORS 192.660(1)(e). DELIBERATIONS WITH PERSONS DESIGNATED TO NEGOTIATE REAL PROPERTY TRANSACTIONS

Metro Council Meeting
Thursday, February 19, 1998
Council Chamber

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF AUTHORIZING THE EXECUTIVE OFFICER TO PURCHASE PROPERTY IN THE COOPER MOUNTAIN TARGET AREA	))))	RESOLUTION NO. 98-2607 Introduced by Mike Burton Executive Officer

WHEREAS, in July 1992, Metro completed the Metropolitan Greenspaces Master Plan which identified a desired system of natural areas interconnected with greenways and trails; and

WHEREAS, at the election held on May 16, 1995, the Metro area voters approved Ballot Measure 26-26 which authorizes Metro to issue $135.6 million in general obligation bonds to finance land acquisition and capital improvements pursuant to Metro's Open Spaces Program; and

WHEREAS, the Cooper Mountain regional target area was designated as a greenspace of regional significance in the Greenspaces Master Plan and identified as a regional target area in the Open Space, Parks and Streams Bond Measure; and

WHEREAS, on February 15, 1996, the Metro Council adopted a refinement plan for the Cooper Mountain regional target area, including a confidential tax-lot-specific map identifying priority properties for acquisition; and

WHEREAS, the properties owned by the Kumler Family and/or their trusts, as identified in Exhibits A-1, A-2, and A-3, are priority properties in Tier I of the Cooper Mountain target area and qualify as a property to be acquired; and

WHEREAS, the amended Open Spaces Implementation Work Plan adopted in January, 1997, provides that Metro Council approval is required for purchases involving "unusual circumstances" or if the purchase price is more than the fair market value determined by Metro's staff appraiser; and

WHEREAS, one of the Kumler properties has an unusual circumstance, now therefore

BE IT RESOLVED,

That the Metro Council authorizes the Executive Officer to purchase the Kumler, properties in the Cooper Mountain regional target area as set forth in Exhibits A-1, A-2 and A-3, in accordance with the terms and conditions set forth in the Agreements of Purchase and Sale.

ADOPTED by Metro Council this _____ day of _____, 1998.

_____
Jon Kvistad, Presiding Officer

Approved as to Form:

_____
Daniel B. Cooper, General Counsel

Exhibit A-1

Resolution No. 98-2607

A tract of land situated in Section 25, Township 1 South, Range 2 West of the Willamette Meridian, in the County of Washington and State of Oregon, more particularly described as follows:

BEGINNING at a point on the Section line 26 2/3 rods West of the Southeast corner of Section 25; thence running North 120 rods to a point; thence West 26 2/3 rods to a point; thence South 120 rods to the South section line of said Section 25; thence East on said section line 26 2/3 rods to the point of beginning.

ALSO COMMENCING at a point on the section line between Section 25 and 36, Township 1 South, Range 2 West of the Willamette Meridian, 53 1/3 rods West of the Southeast corner of said Section 25; thence North 120 rods to a point; thence West 26 2/3 rods to a point; thence South 120 rods to the section line; thence East 26 2/3 rods to the point of beginning.

EXCEPTING those tracts Deeded in Book 654, Page 518, and Book 723, Page 349, Washington County Records.

TAX LOT 3700

Exhibit A-2

Resolution No. 98-2607

A tract of land situated in Section 25, Township 1 South, Range 2 West of the Willamette Meridian, in the County of Washington and State of Oregon, more particularly described as follows:

BEGINNING at a point on the Section line 26 and 2/3 rods West of the Southeast corner of Section 25 Township 1 South, Range 2 West of the Willamette Meridian, in the County of Washington and State of Oregon; thence North 120 rods to the Northeast corner of Parcel I described in Deed from John A. Muessig, et ux, to Stanley A. Fredeen, Jr., et ux, as recorded in Book 560 at Page 680 Deed Records of Washington County, Oregon, the true point of beginning of the tract to be hereby conveyed; thence South along the East line of said tract described in Book 560 at Page 680, Deed Records of Washington County, 1089 feet to a point; thence West parallel to the North line of said tract 300 feet to a point; thence North parallel to the East line of said tract 1089 feet to a point on the North line of said tract; thence East along the North line of said tract 300 feet to the point of true beginning.

TAX LOT 3701

Exhibit A-3

Resolution No. 98-2607

Part of Section 25, Township 1 South, Range 2 West of the Willamette Meridian, in the County of Washington and State of Oregon, more particularly described as follows:

BEGINNING at the Southeast corner of said section; thence North on the East line of said section 120 rods; thence West 26 2/3 rods; thence South 120 rods to the South line of said section; thence East on the section line, 26 2/3 rods to the point of beginning.

TAX LOT 3800

Staff Report

CONSIDERATION OF RESOLUTION NO. 98-2607 FOR THE PURPOSE OF AUTHORIZING THE EXECUTIVE OFFICER TO PURCHASE PROPERTY IN THE COOPER MOUNTAIN TARGET AREA.

Date: February 4, 1998 **Presented by: Charles Ciecko**
Jim Desmond

PROPOSED ACTION

Resolution No. 98-2607 requests authorization for the Executive Officer to purchase Property in the Cooper Mountain Target Area.

BACKGROUND AND ANALYSIS

Metro has entered into purchase and sale agreements with the Kumler family for three contiguous parcels on Cooper Mountain (" the Property"). The Property in Washington County is located in Tier I in the adopted Cooper Mountain refinement plan. The 51.9-acre Property extends from the top of Cooper Mountain and extends 2000 feet down the gentle southern slope toward Metro's current land holdings. Approximately one-half of the property is open meadow, affording an exceptional panoramic view of the Tualatin River valley. The remaining portion is forested with a mixture of young fir and oak. The entire southern boundary and one-half of the western boundary borders Metro property, which will make many management issues easier, such as access control and vegetation management. Adding this property to Metro's 152 acres on Cooper Mountain will significantly expand the potential amenities for a future regional nature park.

An unusual circumstance exists regarding possible encumbrances on the Property, specifically, some mineral and oil rights were reserved on one of the three tax lots (the 19-acre easterly parcel), which could affect Metro's full use of the property and status of title. Mineral and oil rights were reserved in a 1968 deed by four family members prior to the Kumlers' ownership, and one-quarter of these interests was transferred in 1996 to a trust. The other three-fourth interests are held by the heirs of the 1968 interest holders. Although it is possible, the risk is very low that these reserved mineral and oil rights could ever be used. The land-use laws of Washington County and the state do not allow aggregate extraction as a permitted or conditional use. Rezoning would require a Type IV legislative plan amendment requiring approval by the Board of County Commissioners, and would also require the mineral rights holders to demonstrate that the quality and quantity of the aggregate resource at the site satisfies state and local standards, which are quite extensive, and which our natural resource specialists believe could probably not be shown on the site. Impacts on adjacent properties, which include large homes inside the Urban Growth Boundary, would also have to be considered in any land-use application by the mineral rights holders.

Metro has been negotiating with the Kumlers to acquire this Property for the past year. The purchase price for all the parcels together is at appraised value as determined by Metro's review appraiser. Metro has made some contact with some of the mineral rights holders, and will continue these contacts after acquisition of the Property. The Property is immediately north

and contiguous to 120 acres Metro acquired in February, 1997. If acquired, the Property could serve as the main entry and vista point for a future regional nature park.

The Real Estate Acquisition Committee met on January 29, 1998, and unanimously recommended the Kumler Property purchase to the Executive Officer.

FINDINGS

Acquisition of this property is recommended based on the following:

- The target area description in the Bond Measure Fact Sheet is as follows: "Cooper Mountain: Acquire 428 acres of forested natural area."
- The Property is listed as a Tier I property in the adopted refinement plan for the Cooper Mountain target area.
- The site has important scenic, access, wildlife and potential trail qualities.
- This addition would make Metro's current contiguous land holdings adjacent to the UGB.
- The risk is low that the mineral/oil rights could ever be used due to land use restrictions, and Metro real estate negotiators are currently negotiating with the mineral/oil rights holders, and will continue to work with these parties in an effort to acquire the mineral and oil rights after purchase of the Property, if possible.

BUDGET IMPACT

Bond funds would supply acquisition money. Land banking costs are expected to be minimal.

EXECUTIVE OFFICER'S RECOMMENDATION

The Executive Officer recommends passage of Resolution No. 98-2607.

M E M O R A N D U M

D21998c-05

METRO

Date: February 18, 1998

To: Elaine Wilkerson

From: Daniel B. Cooper, General Counsel

Regarding: Ordinance No. 97-710 (A), Establishing 2017 Population Forecast

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At Mark Turpel's request, we have prepared the attached Ordinance No. 97-710 (A), which would clarify that the ordinance adopts the 2017 population forecast of 1,813,000 people for the Metro region.

As you are aware, there was some discussion at the Council meeting on February 12, 1998, regarding the effect of the ordinance that was being considered by the Council at that time. A motion is pending on the Council floor to amend the ordinance.

The A version of this ordinance would resolve these issues by deleting the reference to the table of numbers which had been Exhibit A to the Ordinance and instead substituting clear language to indicate that the legal effect of the ordinance is only to adopt the 2017 population forecast for the region as a whole.

If the Council wishes to proceed to resolve this matter by substituting the A version of the ordinance, it would be appropriate for the Council to either defeat the current motion in front of it to amend the ordinance, or have the maker and the seconder of the amendment withdraw the amendment. After the present amendment is disposed of, a motion to substitute the A version of the ordinance for the ordinance currently in front of the Council would then be in order. The Council could then proceed to a final vote on this matter because the ordinance as amended would not contain any material new substance in that the amendment being prepared is a clarifying amendment only.

DBC:kms
cc. Presiding Officer Jon Kvistad
Councilor McCaig
Councilor McFarland
Councilor McLain
Councilor Morissette
Councilor Naito
Councilor Washington
Mike Burton
Mark Turpel
I:\docs#07.p&d\ewilk218.mem

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF ESTABLISHING A COORDINATED 2017 POPULATION FORECAST FOR USE IN MAINTAINING AND UPDATING COMPREHENSIVE PLANS	)))))	ORDINANCE NO 97-710A Introduced by Presiding Officer Kvistad

WHEREAS, Metro is the land use planning coordinating body under ORS 195.025(1) for the area within its jurisdictional boundaries; and

WHEREAS, Metro is the land use decision maker under ORS 268.390(3) for the regional urban growth boundary (UGB) and related comprehensive plan policies; and

WHEREAS, ORS 195.036 requires Metro as coordinating body to "...establish and maintain a population forecast for the entire area within its boundary for use in maintaining and updating comprehensive plans" which has been coordinated with cities and counties within its boundaries; and

WHEREAS, the 2017 population forecast for the Metro area is contained in the January 26, 1996 document entitled: "Population Forecast County-level;" and

WHEREAS, city, county and state representatives participated in the preparation and review of the 201/ population forecast; and

WHEREAS, the 2017 population forecast has been used by Metro in its five year review of the regional UGB as part of the analysis entitled "The Urban Growth Report" which has been reviewed by city and county representatives and MTAC and MPAC;

NOW, THEREFORE, THE METRO COUNCIL ORDAINS AS FOLLOWS:

Section 1 The Tri-County 2017 population forecast ~~portion of~~ 1,813,000 people~~the "Population Forecast County-level" dated January 26, 1996 attached as Exhibit "A" and~~

EXHIBIT ~~B~~A

Findings of Fact - 2017 Population Forecast

The record before the Metro Council for its adoption of the 2017 population forecast demonstrates coordination with affected local and state agencies as follows:

1. Based on 1994 population, a new 2015 forecast was developed and explained in a public memo to the Metro Council dated April 25, 1995.

2. An Economic Advisory Committee of expert economists and demographers was convened to review the new population forecasts on May 10, 1995. As indicated in the May 12, 1995 memo to Mike Burton, State Office of Economic Analysis economists and demographers participated.

3. The three county 2017 population forecast in the January 26, 1996 "Population Forecast County-level" is consistent with

(1) the 2017 population forecast in Long-Term Population and Employment Forecasts For Oregon" from the State Office of Economic Analysis dated January, 1997, and

(2) "County Population Forecasts" table dated January 1997.

4. City and county policy-makers and technical representatives reviewed the three-county population forecast with Metro economist staff at a May 28, 1995 joint meeting of the Metro Policy Advisory Committee (MPAC) and Metro Technical Advisory Committee (MTAC) prior to the January 26, 1996 report.

5. City and county planning directors and policymakers have reviewed the 2017 population forecast as it was used in the 1997 Urban Growth Report which they recommended for adoption by the Metro Council.

6. Prior to adoption of this ordinance, copies of the ordinance and an explanatory memorandum were distributed to MPAC and MTAC, including the Director of the Department of Land Conservation and Development.

I:\R-O\2017FORE.ORD (revised 2/17/98)

BENEFITS:

Avoids expensive, controversial bridge crossing of the Williamette.
Avoids expensive reconstruction of the Transit Mall.
Avoids disruptions to transit service & downtown businesses during construction.
Avoids dislocation & dispersal of transit service after construction to 5th, 6th, 10th, & 11th Avenues; proven to be less efficient than the current cofiguration.

LOTi adds 3 streetcar routes which form the beginnings of *planned* future rail extensions.
Helps build riverfront improvements on the Eastbank of the Williamette, including "The Promenade".
OMSI will be served at its' front entrance rather than its backside parking lot, or not at all.
Create at the Rose Quarter, a *true*, regional, rapid transit, crossroads-hub. The LOTi vehicle accepts transfers from bus routes, both Max lines, serves the entire length of the Mall, and eliminates timing & capacity considerations. At the Rose Quarter junction, Max trains "line-up", side-by-side, *under cover*; (a 10' to 30' entire length transfer). Transfering downtown at Pioneer Courthouse Square, Max trains are 1- 2 blocks apart, *uncovered*, with one street crossing. Downtown train connections and transfers cannot be timed. During rush hours the S/N line can easily enter the E/W line, run downtown and turn around at 11th. The rest of the time (80%), transfering at Rose Quarter, E/W Max can handle the transfers, making both lines more efficient. LOTi arrives downtown sooner than Metro alignments.

Serves the Transit Mall more frequently lightrail's 15 minute operating time (2-4 minute operating time).
Reduces the number of noisy, polluting diesel buses on the Mall and 10th & 11th Avenues.
Piggy-backs investment onto high-speed rail, Amtrak, freight & commuter-rail corridor; a guaranteed, voter-approved destination of Oregon City.

A trackless trolley extension to OHSU is both less expensive & technically superior because the steep accending and especially decending requires greater traction than rail provides for safety reasons.

Reduces the number of "track-wearing" curves between "Clackamastown" and Rose Quarter. LOTi also reduces the number of stops from 23 to 14. This makes the **Max** vehicle operate "fast-moving" as it is designed to be. **A lightrail that acts like a commuter-rail.** The land use goals are not sacrificed; they are improved by the streetcar line extensions further into redevelopable area, *preservatively, not destructively.*

Swan Island, an underated, exceptionally ideal route north must be considered; via Larrabee (an original rail corridor), Interstate (an endorsed future corridor), through the Albina District (development potential), and onto the SPRR corridor (maintenance benefit), and "final destination" at the large employment & active commerce base there; and, at some future date, extend north. Extending through North Portland will unproductively eliminate Vancouvers' option of choosing a Jackson Bridge route. If Portland builds a line to the airport, that route must be reconsidered. Fair, Fareless LOTi Benefit List never stops growing!

Art Lewellan 3705 SE 8th Ave. #9 Portland, Oregon 97202 (503) 238-4075

021998-01

Portland can build a lightrail to Oregon City !

(and so much more)

L. O. T. i.

The 3 basic elements of the LOTi proposal:

1. Eastbank lightrail alignment, SPRR corridor, Rose Quarter to Oregon City.

2. Trackless Trolley electric buses circulating from the Rose Quarter, across the Steel Bridge, up & down the Transit-mall.

3. Streetcar line extension of the Central City Streetcar from 10th & 11th Avenues, across the Hawthorne Bridge, directly to a Water Avenue turn-around, with special access to OMSI.

Loop Oriented Transit-mall Intermodal

A "Trackless Trolley Loop-Circulator" for Portlands' Transit mall, running from a suitable street at the extended southern end, directly to Union Station, across the Steel Bridge to the Rose Quarter.

LOTi vehicles, similar to Seattles' standard and articulated Trolley-buses, eliminate the expensive, disruptive demolition and track-laying process.

These electrical buses cooperate with diesel buses . Current bus routes need not be displaced off the mall to other streets downtown.

LOTi creates conveniently regular transfering on the Mall, to and from the Rose Quarter transfer center.

A conveniently often transfer vehicle operating from the Rose Quarter serves downtown better, and when combined with an Eastbank lightrail alignment, creates there a true, regional, rapid transit, crossroads-hub.

In this way we create less noise & air pollution on the Mall by *reducing, not displacing* the number of diesel buses there. It accommodates "trans-Mall" users more frequently than lightrail and adds an important transfer vehicle at the Rose Quarter. It has the expandability to include other modes of transportation and recognizes the importance of the Eastbank corridor as a regional consideration. LOTi *corrects* a major failing of the Tri-Met system: It is the delay waiting for a transfer which transit users object to, not simply transferring. LOTi accomplishes this end most effectively on the central segment of the system.

LOTi

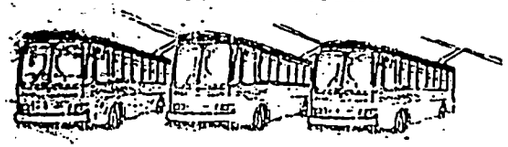
Loop Oriented Transit-mall Intermodal

MAX LIGHTRAIL

STREETCAR RAIL

TRACKLESS TROLLEY

COMMUTER RAIL



3 TRACKLESS TROLLEY SYSTEMS

OHSU

Vets

Dom

L.O.Ti.

Swan Isl.

to Jantzen Bch.

Johns Landing

INTERSTATE AV.

Kenton

Rose Quarter

OMSI

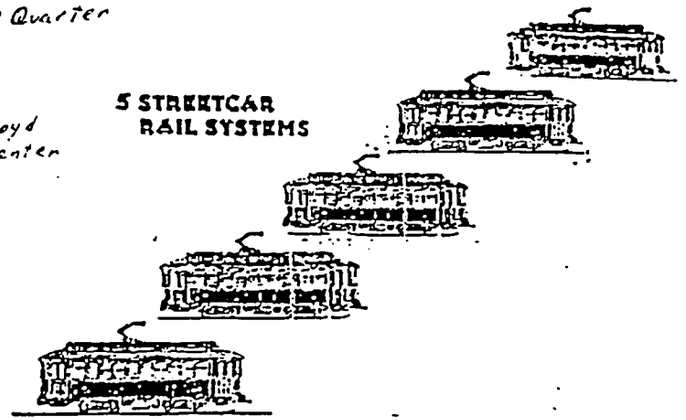
Grand Ave.

Lloyd Center

Sellwood

Lake Oswego

5 STREETCAR RAIL SYSTEMS



Milwaukie

1 MAX LIGHTRAIL SYSTEM
miles longer, reaching Oregon City

West Linn

Oak Grove

PDX

Johnson City

Oregon City

Clackamas Town

to Vancouver

Gateway

021998-02

FY 1998-99 Budget Presentation

INTRODUCTION *(Metro logo slide)*

A. Critical budget year ***(regional map slide)***
- Taking our vision (our maps) and implementing on the ground
- Local governments need our help

1. Emphasis on citizen involvement

(slide showing citizens discussing Metro issues)
- indicate where citizen advisory group letters are in the budget document (page A - 282)

B. Budget built on core Metro values
(slides/pictures emphasizing each value)
1. access to nature
2. clean air and water
3. the ability to get around the region easily
4. safe and stable neighborhoods
5. resources for future generations
6. a strong regional economy

THREE MAJOR POINTS

A. Budget Overall is Less than Last Year
(slide comparing budgets over last 3 years)
- **$411 million** FY97-98 down to **$389 million** FY98-99

1. no new taxes; no rate or fee increases
2. tip fee down (average rate of $63.50/ton)
(slide showing changes in tip fee over time)
3. living with ballot measure 50 - impact on the Zoo
- even though Measure 50 is better than Measure 47, still a $1.4 million hit at the zoo

B. Emphasis on Growth Management
- 21% increase in general fund to GM

(slide showing amount of excise tax given to GM over last several years followed by UGB map)
NEW GROWTH MANAGEMENT INITIATIVES
(slide of regional map)
1. help to local governments
2. urban reserve master plans
3. Title 3
4. affordable housing

C. Doing our Job ***(slides showing employees at work)***
THE BUDGET:

1. implements the Regional Framework Plan
   a. regional inventories - Parks
   b. completes Regional Transportation Plan
      - TOD program - Transportation
      - emphasizes improving air quality
2. Anticipates the opening of the Oregon Project
   - Mountain Goat Exhibit
   - New restaurant
   - Entry with light rail
3. Continues Openspaces Acquisition
   - 1,000 more acres to 4,100 total
   - landbanking
4. Completes preliminary engineering for South/North Lightrail
5. Includes contracted support services to MERC to help reduce MERC's overall costs
6. Beefs up maintenance and improvement at all Metro facilities
   a. develops Master Plans
   b. establishes Renewal and Replacement funding for all facilities and computer replacement
   c. Anticipates OCC Completion bond measure

CLOSE

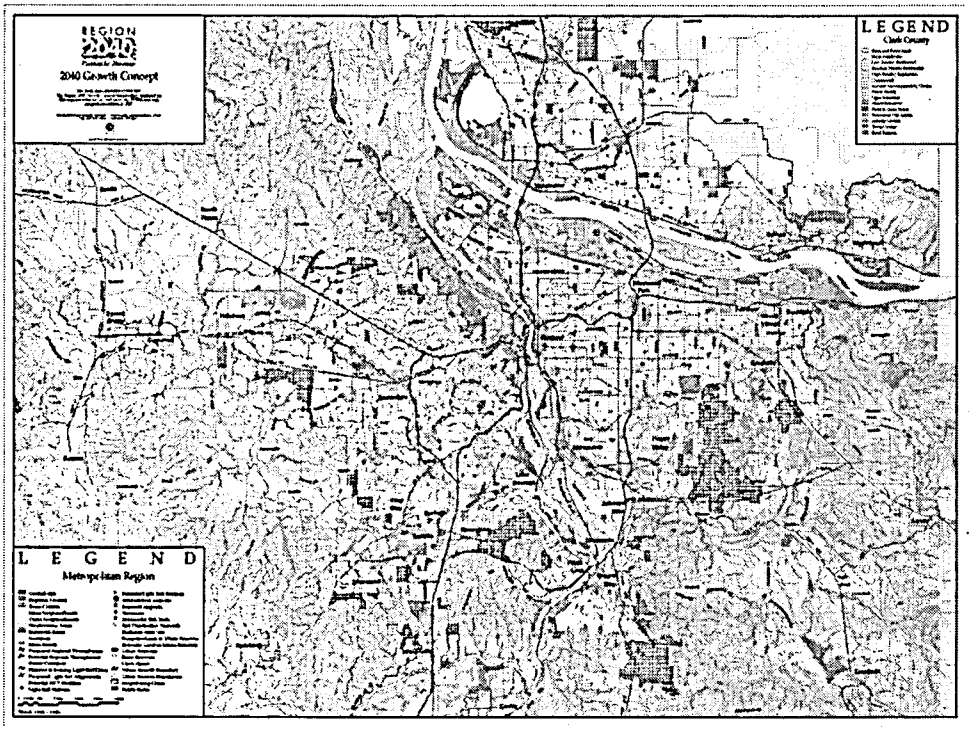
The budget continues to be in balance, and Metro continues to provide a broad range of services to the citizens of the region to manage growth and protect and enhance livability.

I look forward to working with the Council to adopt the budget and enable Metro to continue its important mission.

021998c-03

METRO BUDGET

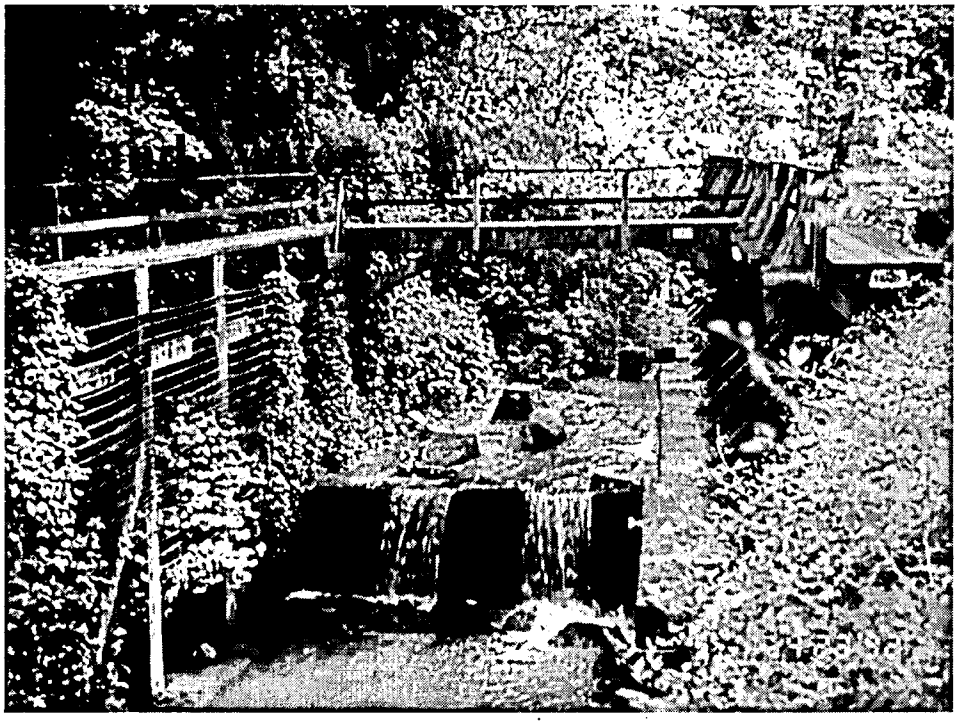
Fiscal Year 1998-99



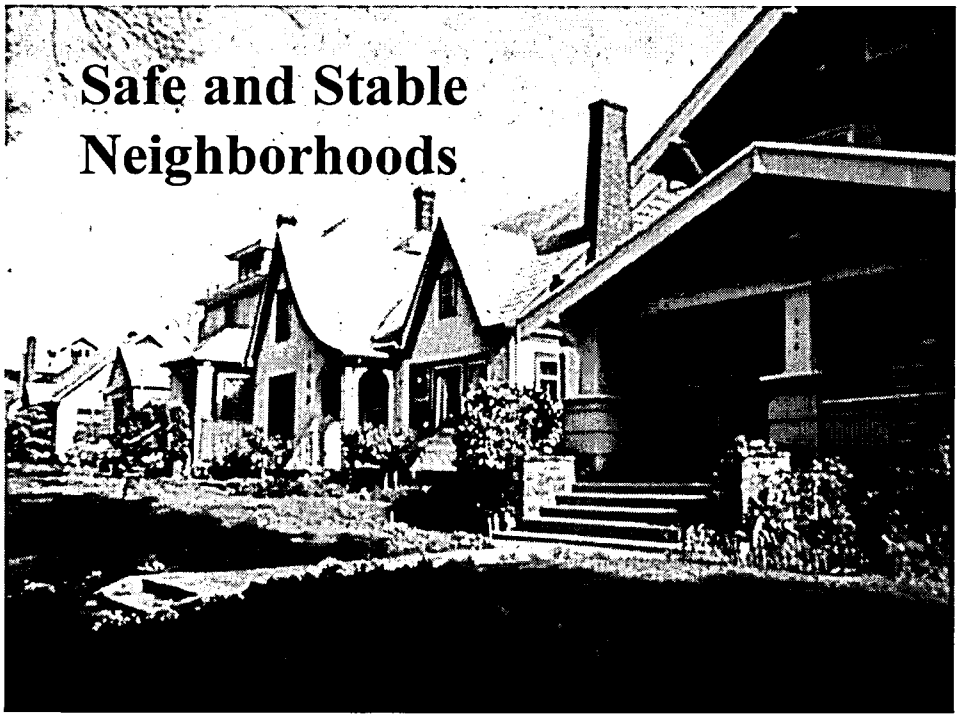
Metro

provides regional services to create livable communities through:

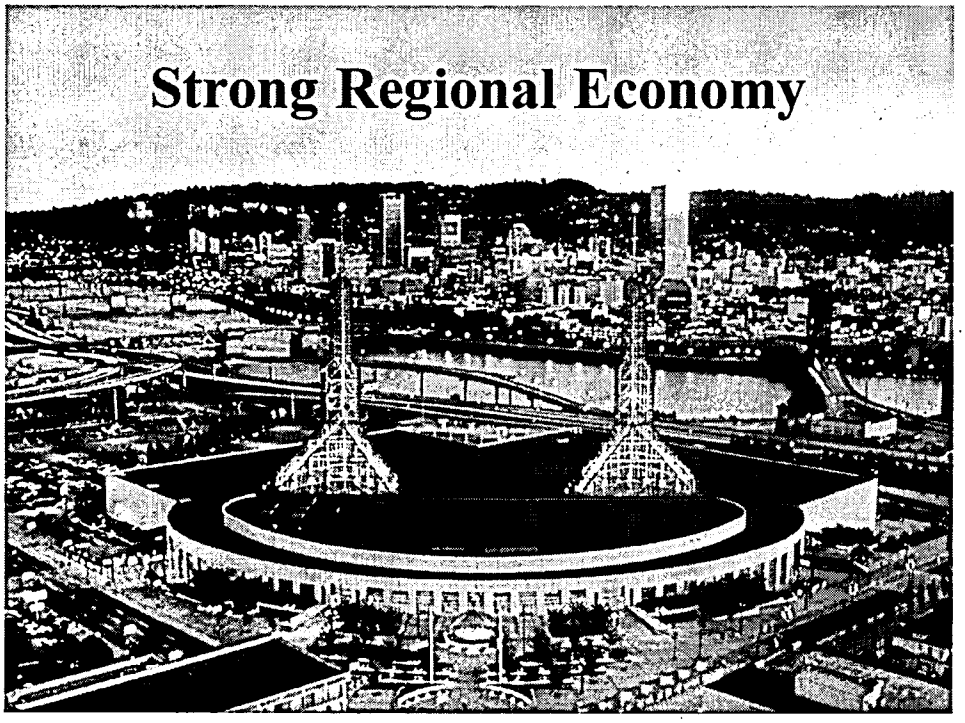

Access to

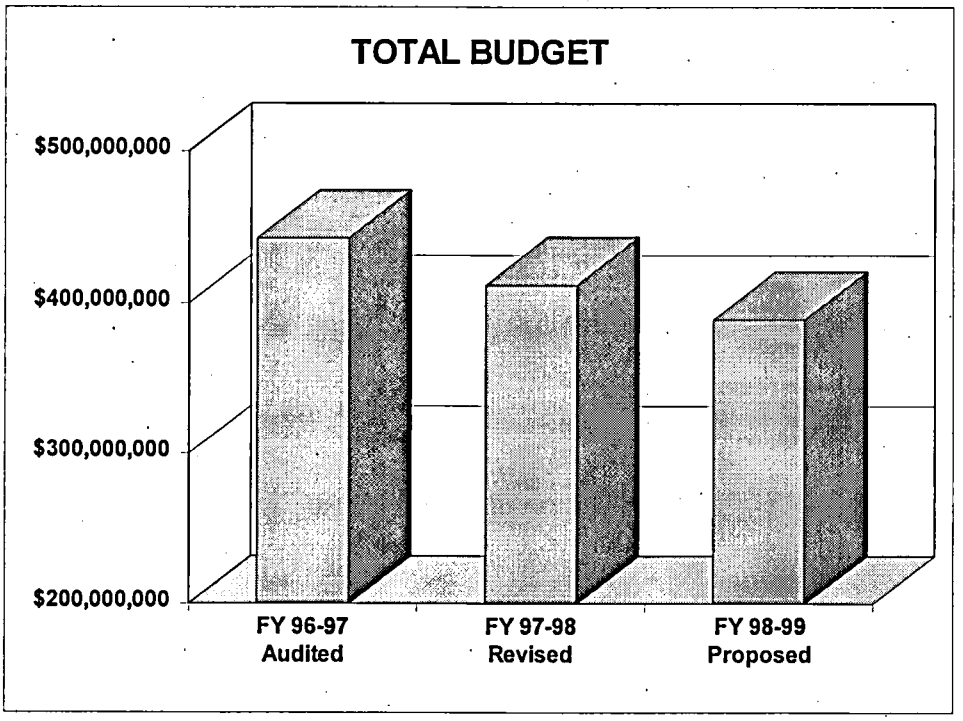


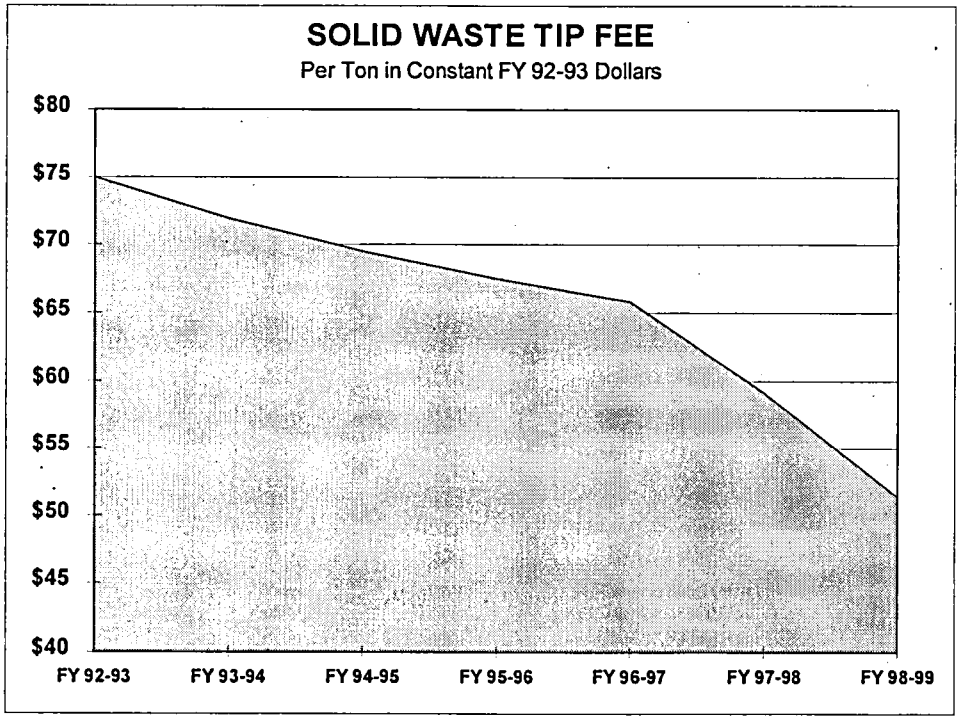

Easily

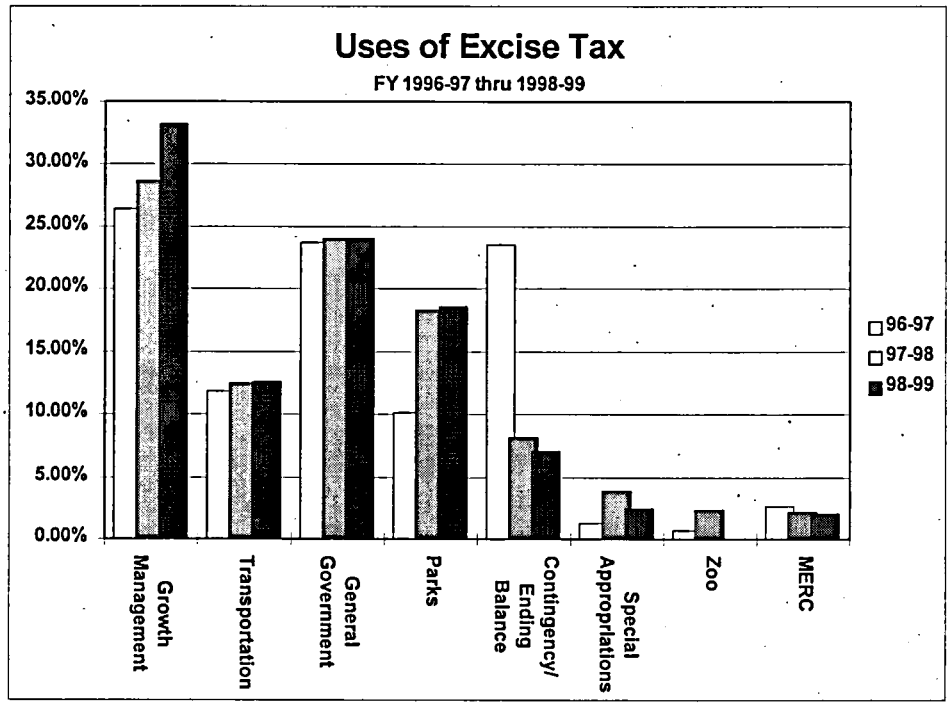

Safe and Stable
Neighborhoods

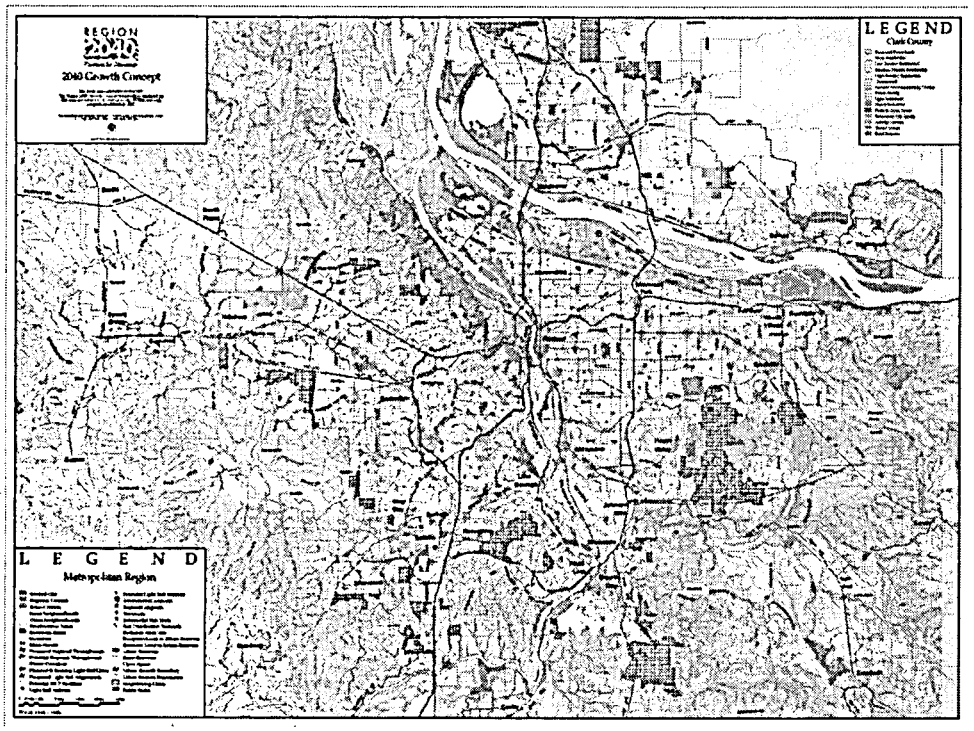

Resources for Future Generations


Strong Regional Economy

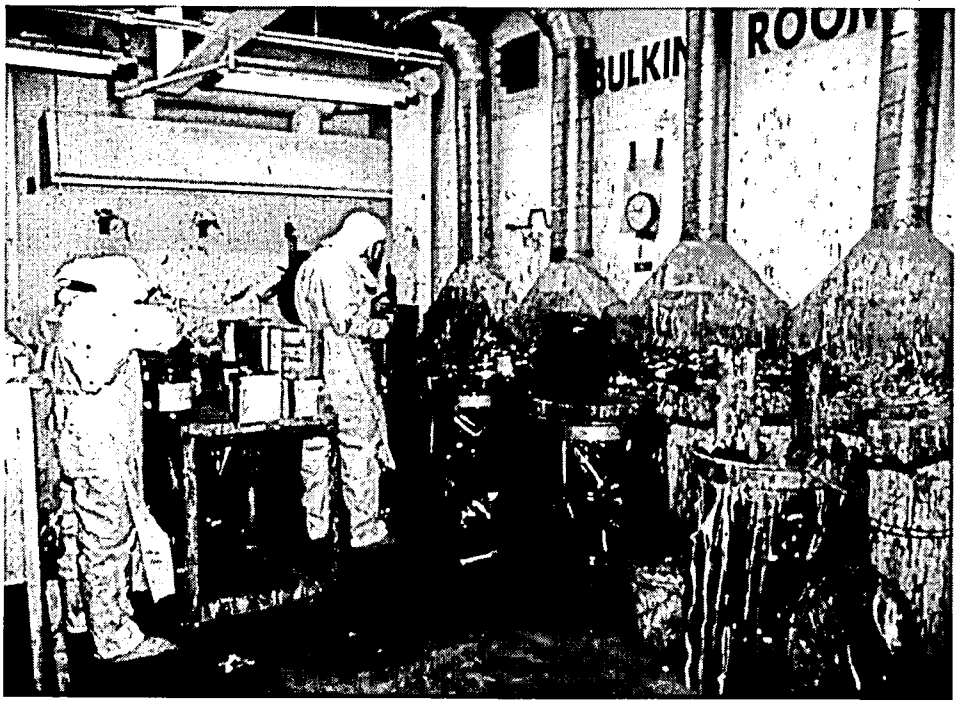

TOTAL BUDGET
$500,000,000
$400,000,000
$300,000,000
$200,000,000
FY 96-97
Audited
FY 97-98
Revised
FY 98-99
Proposed

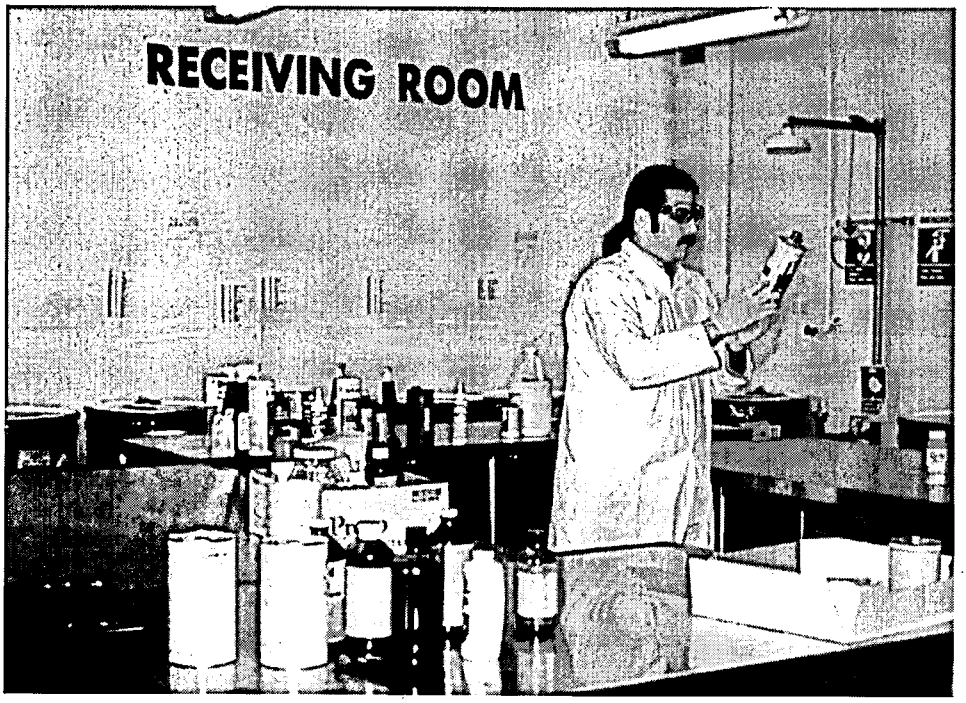

SOLID WASTE TIP FEE
Per Ton in Constant FY 92-93 Dollars
$80
$75
$70
$65
$60
$55
$50
$45
$40
FY 92-93
FY 93-94
FY 94-95
FY 95-96
FY 96-97
FY 97-98
FY 98-99


Uses of Excise Tax
FY 1996-97 thru 1998-99
35.00%
30.00%
25.00%
20.00%
15.00%
10.00%
5.00%
0.00%
96-97
97-98
98-99
Growth Management
Transportation
General Government
Parks
Contingency/ Ending Balance
Special Appropriations
Zoo
MERC


LEGEND
LEGEND


Doing our Job . . .


BULKIN


RECEIVING ROOM


FILM

021998c-04

LELAND CONSULTING GROUP

MEMORANDUM

TO: Metro Council

FROM: Edward Starkie
Conrad Hamilton

DATE: 19 February 1998

SUBJECT: Growth Allocation Implicit in 2017 Ordinance

The Metro 2017 population forecast is currently being reviewed for adoption by the 2017 ordinance (ordinance No. 97-710) in order to provide estimates for the state coordinated forecast. Upon acceptance, these population numbers are proposed, by the state, for use in comprehensive planning by cities and counties. Leland Consulting Group has reviewed the forecasts and would like to express the following concerns regarding their adoption. We do not disagree with the model itself for the purpose of achieving a 2020 projection of population for the region as a whole. We do feel that using this forecast to provide sub-regional allocations of population is a misconstruction of the purpose of this methodology, and the methodology is not appropriate for such allocations.

Metro's methodology in creating the 2017 population growth numbers is a statistical projection process. This model is a regional input-output econometric model. Input-output models consider a region as a more-or-less complete unit. Because such models take in a complete region they ignore factors internal to the region such as employment migration, population migration, and land supply and demand differences between jurisdictions. Applying such a model to individual jurisdictions within the region introduces a large element of uncertainty, because factors that are internal at the regional level become external factors on the jurisdictional level. These external factors beyond the jurisdictional boundaries can have profound effects on the accuracy and supportability of the relative population and employment distribution in the jurisdiction being studied.

The regional model created by Metro's economist is a planned, peer-reviewed study that was intended to provide single regional numbers for population and employment by the year 2020. The methodology was not intended, and is not appropriate for use as a location model or as an allocation model either for

counties or other jurisdictions. The use of this model as a location model to assign population and employment to county and city jurisdictions is inappropriate for two reasons. First, the scale at which the model is applied ignores its intended use. Second, because in viewing sub-regional growth trends, it is necessary to model the factors that can be ignored when gauging growth at the regional scale.

As an example, the exact location within the region of an Intel facility makes no difference for a regional model of population and employment; overall population and employment trends merely respond to the general increase in an industry, showing a regional effect from the Intel facility. If, on the other hand one considers the relative location and effect of such a facility on a jurisdictional level, changes are profound. Before Intel located in Hillsboro, industrial land had declined to 50 percent of its pricing two years earlier due to lack of demand. After Intel, land pricing has more than tripled and Hillsboro has permitted approximately 7.5 million square feet of commercial/industrial development. This shift in growth *at the local level* is due entirely to policy decisions and actions by Hillsboro and by Metro approving a UGB that supports Hillsboro and Washington County growth. Similarly, in Clackamas County, the potential for industrial and commercial facilities at URSA 34 for example (as suggested by DLCD) would profoundly affect the forecasts of an allocation model.

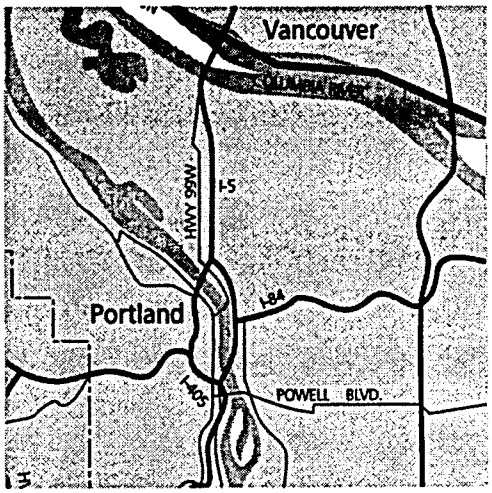
Assignment of population or employment projections to individual counties and jurisdictions must rely upon the policy decisions adopted by Metro within the last year in its planning for urban reserves, infill and redevelopment, locations of town centers and employment centers, Main Street corridor concepts, local migration between jurisdictions, and other planning initiatives associated with these factors. The model used in the 2020 forecast does not and need not take these recent policy decisions into account, nor is it meant to. Understanding the need for a new population model to deal with factors at a jurisdictional level, Metro economist Sonny Conder has developed a growth model in an effort to begin to address these concerns. In his model, land supply and demand, current population and employment trends, congestion and commuting time, among other factors, are modeled to arrive at the population and employment projections for jurisdictions.

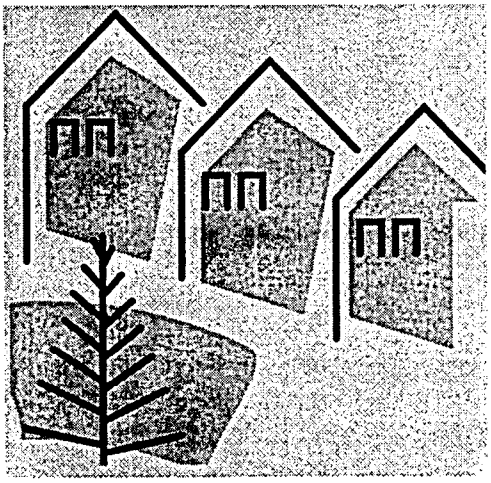
As the Metro area runs out of land for housing and employment, locations for these uses will shift to areas with land supply. The Metro Council will make critical policy decisions deciding which counties will experience economic growth, and to what extent. It is unlikely that Metro's intent is to make a policy decision that limits Clackamas County's growth in relation to its urban reserve allocations. Sonny Conder's model makes an effort to accept this

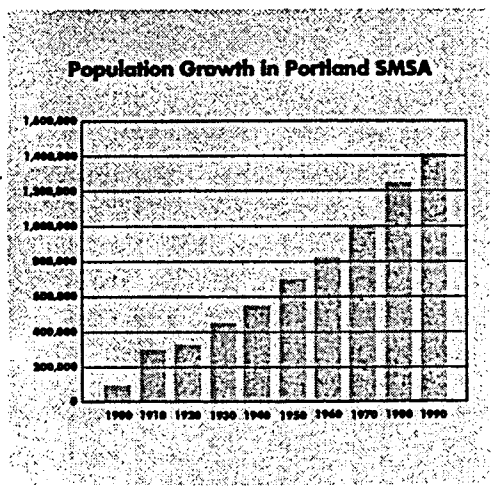
premise and focuses on understanding the migration of employment and housing between jurisdictions. Currently, the largest urban reserve land supply, approximately 12,600 acres, is in Clackamas County. This compares to reserves of fewer than 2,500 acres in Multnomah County and approximately 3,600 acres in Washington County. This land supply is a matter of policy, a Metro directive to place future growth. At the same time, the current 2017 ordinance is making de facto growth allocations without regard to policy. In this ordinance, Clackamas County receives a smaller share of regional growth than either Washington or Multnomah Counties. On the regional scale, one can project the regional share of national industry growth, calculate demographic trends and provide a prediction for employment and population growth. On the county scale, such a model is inadequate because it fails to reflect land supply and other factors associated with planned economic growth.

Urban reserves and land supply have a profound effect on population growth on the county level. To ignore urban reserve and land quantities nullifies the accuracy and supportability of growth forecasts for counties. This will also have a profound effect on growth allocations within the region. Thank you for the opportunity to comment.

021998c-06







The 2015 Regional Forecast

Population, Households, Employment and Income

Portland-Vancouver Metropolitan Area

January 1996

METRO

Price: $10.00

PORTLAND-VANCOUVER METROPOLITAN AREA

THE 2015 REGIONAL FORECAST

TECHNICAL DOCUMENTATION

POPULATION, HOUSEHOLDS, EMPLOYMENT AND INCOME

JANUARY 1996

METRO

Mike Burton
Executive Officer

REGIONAL GROWTH MANAGEMENT SERVICES
DATA RESOURCE CENTER

John Fregonese
Director

ACKNOWLEDGMENTS

The preparation of this report has been financed in part by funds from the U.S. Department of Transportation, Urban Mass Transportation Administration, under the Mass Transportation Act of 1964 as amended; and by funds from the Federal Highway Administration, U.S. Department of Transportation.

THIS REPORT PREPARED AND WRITTEN BY METRO STAFF:

Dennis Yee, senior economist.....797-1578

METRO

METRO is the directly elected regional government that serves the 1.2 million residents in the urban and suburban portions of Clackamas, Multnomah and Washington counties as well as those in the 24 cities of the region including: Beaverton, Cornelius, Durham, Fairview, Forest Grove, Gladstone, Gresham, Happy Valley, Hillsboro, Johnson City, King City, Lake Oswego, Maywood Park, Milwaukie, Oregon City, Portland, Rivergrove, Sherwood, Tigard, Troutdale, Tualatin, West Linn, Wilsonville and Wood Village.

METRO is responsible for the regional aspects of transportation and land-use planning; regional greenspaces and parks; solid waste management; operation of METRO Washington Park Zoo; and technical services to local governments in the region. Through the Metropolitan Exposition-Recreation Commission, METRO manages the Oregon Convention Center, Civic Stadium, the Portland Center for Performing Arts and the Expo Center.

METRO is authorized by Chapter 268 of the Oregon Revised Statutes and the METRO Charter adopted by the citizens of the region in November 1992. METRO is governed by a 7-member council and an executive officer. Councilors are elected from districts and the executive officer is elected regionwide.

For more information about METRO or to schedule for a community group, call 797-1510.

CONTENTS

FIGURES, TABLES, AND CHARTS

A BACKWARD GLANCE AT THE FORECAST AND THE LAST SIX MONTHS

The ***2015 Regional Forecast*** is a regional outlook of the Portland-Vancouver Metropolitan area. The forecast was produced based on a set of assumptions and expectations developed in June 1995. As we complete the *2015 Regional Forecast* and Growth Allocations, some of our readers may note that the regional forecast is now about six months old. Our efforts included the most current information as of mid-1995, but in the last six months there have been world events that have shaken the confidence of domestic credit markets and Wall Street investors.

It is our belief that the *2015 Regional Forecast* continues to be a tractable forecast for a variety of local planning purposes We feel that recent events have not materially altered the key assumptions contained in the *2015 Regional Forecast*, but we are much more cautious about our growth estimates over the next couple of years.

Just as we had assumed, the Federal Reserve has successfully engineered a soft-landing. Inflation has been relatively benign; interest rates remain relatively low and stable; U.S. GDP growth is moderate; and growth abroad appears to be picking up more strength (Japan and Europe). In local news, high-technology firms continue to flock to the Northwest, especially in Washington County and east Multnomah County; construction is still rolling ahead; trade and services remain healthy.

The forecast risk is somewhat greater now than when the *2015 Regional Forecast* was constructed. The Federal Budget impasse has extended much longer than expected. Credit markets are uncertain about the direction interest rates will move. There is now a slightly greater chance of a U.S. recession in 1996 that could extend through mid-1997. Although these developments are economically unfavorable events, at this time it is our opinion that the assumptions made in the *2015 Regional Forecast* are still tracking reasonably well.

We are more concerned as to what extent regional growth will be affected by a drop in output by regional high-tech firms if demand for computer-related equipment and semi-conductor products (chips and silicon wafers) goes into another of its cyclical downturns. In the last several years, Portland's economic sectors have allied itself closely with the notoriously volatile high-technology industry. Presently, Wall Street pundits are quite fearful that demand for chips and technology products might go into a tailspin. This could have an adverse job impact on the short run (say 2 or 3 years) investment decisions of high-tech firms locating in the Portland area. Production at existing plants might be scaled back producing layoffs. Suppliers in the area are also likely to feel the pinch too.

However, we remain cautiously optimistic. We expect U.S. growth to be modest. A budget resolution should be forthcoming giving the Fed the go ahead to cut interest rates

again. Recessionary pressures should abate with lower interest rates. The Fed will continue to monitor inflation carefully.

The Portland economy should continue to roll ahead, but at a more moderate and sustainable growth rate.

Good news from Japan and the Pacific Rim. Japan has been in a deep funk since the collapse of its real estate market. It now appears that the Japanese government is finally facing their realty woes head on. Recently, they announced their own version of a Resolution Trust Company to clean-up their troubled banks. Japan is the second largest economy in the world and represents a key export/import partner for Oregon businesses. The Pacific Rim ought to pick up more momentum too as last years flight from emerging markets turns around in 1996.

Despite a higher risk of a recession, we believe the Regional Forecast is still on track. A recession is not predicted in the *2015 Regional Forecast*, but growth is projected to moderate and move towards a steady long run growth path. Several current indicators support this. U.S. growth appears to be slowing as the June U.S. forecast calls for. Regional population growth is slowing as migration rates head down. PSU[1] researchers estimate fewer migrants in 1995 than in 1994, citing an improving California economy as the reason for the declining rate of net-migration in Oregon. Overall, the recent news seems to coincide with projected figures developed in the *2015 Regional Forecast.*

The Foreword goes over the background and methodology of the regional forecast and briefly discusses the growth allocation of household, population and employment for the 2015 Regional Forecast.

[1] Portland State University News Release, November 8, 1995

FOREWORD

GENERAL BACKGROUND

The last *Official Regional Forecast* was adopted by the METRO Council and documented in June 1989 publication. Since then, the Oregon and Portland-Vancouver economies have expanded more rapidly than expected. The regional economy continued to expand despite a mild downturn in 1990-91. Strong net in-migration and population growth combined with robust economic activity, especially in the high-tech industries, have boosted actual population growth ahead of the forecast of population.

In 1992, METRO embarked on a 50-year growth management plan, called *Region 2040*, which would manage urban sprawl and re-shape the pattern of urban development in the future.[2] As a starting point, the plan needed a projection of population, household, and employment growth through the year 2040. A regional forecast for *Region 2040* was finalized and documented in November 1993. It became an interim update to the *1989 Regional Forecast* for regional growth management and planning. This *2040 Regional Forecast* (also called *Base Case 2*[3]) was used to develop the study cases which became known as the Base Case 2 scenario and alternatives growth concepts for *Region 2040*. Also, the *2040 Regional Forecast* was applied to a variety of METRO transportation plans.

In the nearly five years since the last regional forecast, the Portland-Vancouver economy has undergone a variety of changes which were both unforeseen and of significant importance to the regional economy. By 1995, current population estimates showed that the 2040 Base Case 2 projection was significantly underestimating regional growth. Actual population figures[4] for 1994 already exceeded projected growth by nearly 39,000 individuals.

It is important then to monitor the performance of previous forecasts and to update them as new and better information become available. This publication outlines METRO's latest effort to produce a regional forecast which better reflects recent developments and incorporates new expectations of emerging growth trends. The regional forecast is based on the latest available information and best applied statistical and econometric science at hand. This forecast incorporates data about the regional economy during the last five years and updates this into the new regional forecast.

This publication is intended to serve several purposes. First, it is intended to revise and update the population, household, employment and income projections for the Portland-Vancouver[5] regional economy. Second, this regional forecast is a key input in

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[2] METRO Growth Management, *Region 2040, Decisions for Tomorrow, Concepts for Growth, Report to Council*, June 1994
see also: *METRO Region 2040 Update, You Said It*, Fall 1994

[3] The 2040 Base Case 2 Regional Forecast was published as a staff working paper in November 1993.

[4] Portland State University, Center for Population Research and Census

[5] The regional economy consists of Clackamas, Multnomah, Washington, and Yamhill counties of Oregon and Clark county Washington.

operationalizing the 2040 Framework Plan. Its principal purpose is to provide projections of future economic and demographic conditions as the basis for long-range transportation and land use planning in the METRO region. Third, we release the information in this document to provide information to public and private regional planners and a wide-range of policy makers in the Portland-Vancouver area for use in their decision making processes. Fourth, this information is made available as a way to disclose the economic and demographic outlook to public review.

SPATIAL ALLOCATION OF THE REGIONAL FORECAST

In a companion document, *The Regional Forecast and Urban Development Patterns*, we describe the growth allocation process and allocation figures. This document explains the methodology behind allocating the regional forecast to smaller geographic areas and provides detailed estimates of where we anticipate future households will locate and where future workers will be employed within the region.

The *2015 Regional Forecast* serves as the regionwide **control** for allocating the number of households, employment and population to the counties, by 6 Subarea Land Markets, then by METRO 20 districts, and finally by Traffic Analysis Zones (TAZ).

METRO staff has been working in cooperation with city and county planners inside the METRO region to allocate the projected growth (households and employment) for the entire region to small area estimates. The growth allocation follows a top-down approach using linear growth share equations which are constrained and controlled to the values in the regional forecast. Employment and households are allocated first to the six major land market areas (see Map 1).

The allocated growth within each land market was further subdivided into METRO's traditional 20 district subareas (see Map 2). This suballocation was performed using another set of linear growth share equations which were constrained to the growth allocations previously determined for each of the six previous land markets. The 20 district subareas are nested within each respective land market area.

With local government involvement, the 20 district subarea allocations for households and employment were distributed to TAZ's based on **planned** *Region 2040* growth capacities in the year 2015, buildable and vacant lands inventory, and environmental encumbrances (wetlands, floodplains and steep slopes).

THE REGIONAL FORECAST METHODOLOGY

The economic and demographic outlook contained in this document actually represents three separate 25-year scenarios: a Medium Growth Outlook, a High Growth, and Low Growth scenario. The Medium Growth scenario represents our most likely (highest probability) growth scenario. That is, the Medium-case forecast embodies our best estimate of what future growth will be in this region, and it incorporates the expectations

and predicted outcomes we feel have the highest likelihood of being realized. The Medium Growth forecast is a trend scenario; by this we mean that significant business cycles in the long run are not characterized in the outlook. It is not our contention that business cycles in the future will never occur, instead cyclical turning points in the distant future are extremely difficult to predict. So, we construct a trend scenario which allows the regional economy to grow along historical averages in relation to regional population growth parameters and subject to macroeconomic conditions anticipated for the nation.

Economists often differ in their opinion regarding future economic growth, because of theoretical assumptions and the economic indicators for which they feel are important performance measures. Global developments also add to the forecast uncertainty. Economists and forecasters' ability to predict the future are limited to the degree in which the economic models used are able to predict the behavior of people and industry to various economic stimuli in the future. In order to mitigate the risk inherent in a single forecast, alternative forecast scenarios can be constructed. For example, each forecast scenario can be interpreted as a possible outcome given different sets of assumptions regarding economic and population growth in the future.

Our solution to the problem of uncertainty is to construct high growth and low growth scenarios. Within the bounds of the high and low forecasts, these projections represent a "confidence range" around which future economic and demographic conditions are likely to occur given minor changes in long run economic and demographic assumptions. The high and low scenarios attempt to predict with a reasonable degree of confidence the probable range in which the regional economy could grow in the future. The high and low forecast should represent the majority of volatility in future growth and business cycles. All three scenarios are developed under the assumption that there will be no major or unusual shock(s) to the region or the U.S., such as a large war or a major natural disaster (an earthquake, tidal wave, or other act of God). The high and low scenarios focus on possible shifts in fundamental trends of the economy and the population.

The *2015 Regional Forecast* was prepared using a METRO developed econometric model and national growth assumptions obtained from the WEFA Group, Inc. For more information about the METRO Regional Economic Model, please refer to the Model Reference Guide [6], or about the WEFA Group, Inc., consult them directly or refer to any of their published U.S. Economic Outlook publications.

As part of the forecasting process, we had the regional forecast reviewed by a voluntary advisory group apart from METRO – comprised of business leaders, public and private economists, demographers and academic professionals. The METRO Economic Advisory Committee met with METRO staff on May 10, 1995 to discuss and evaluate the details of the econometric forecast.

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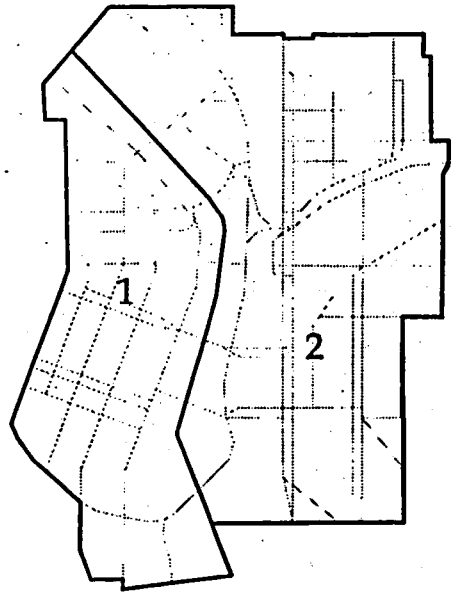
[6] METRO Regional Economic Model (Portland-Vancouver Area), Model Reference Guide, METRO Data Resource Center, July 1994 (unpublished report).

Central City

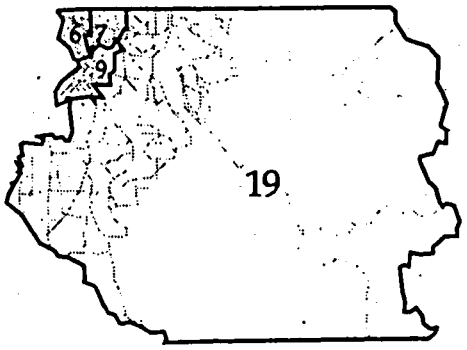


Land Market Area 1

Rest of Multnomah

Land Market Area 2

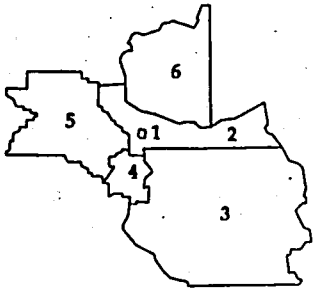
East Clackamas



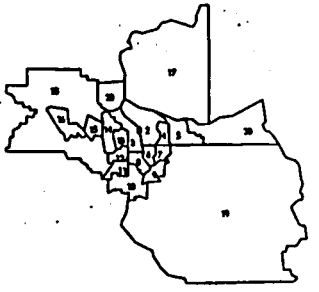
Land Market Area 3

Subareas and Land Market Areas

Portland Metropolitan Area

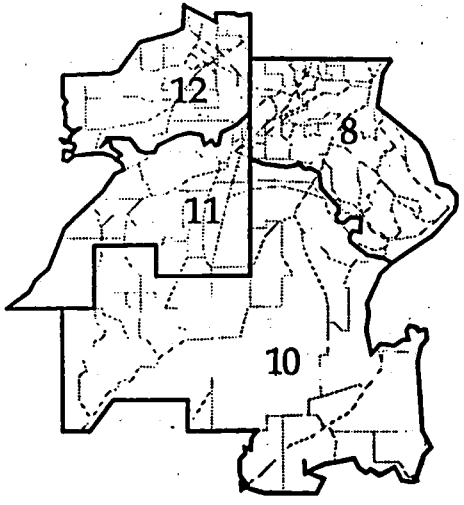


Land Market Areas



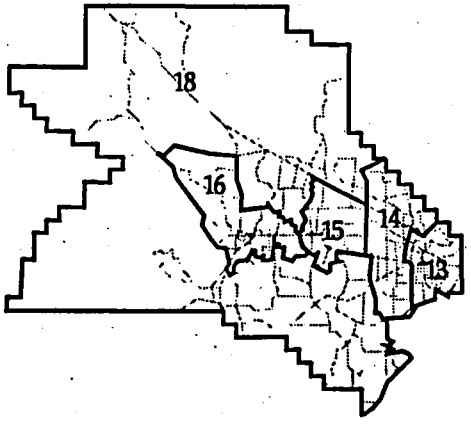
20 District Subareas

Metro South



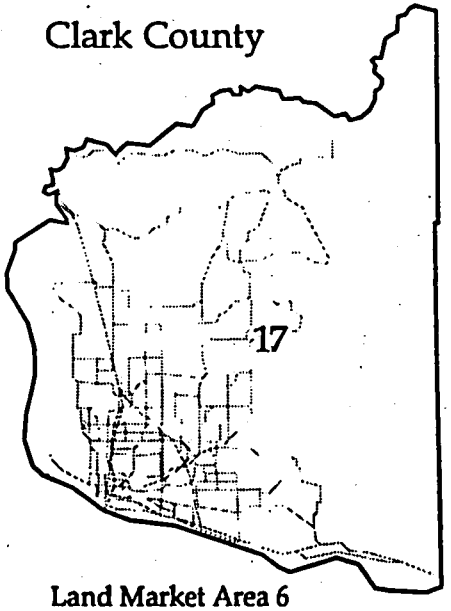
Land Market Area 4

Washington Co. West



Land Market Area 5

Clark County



Land Market Area 6

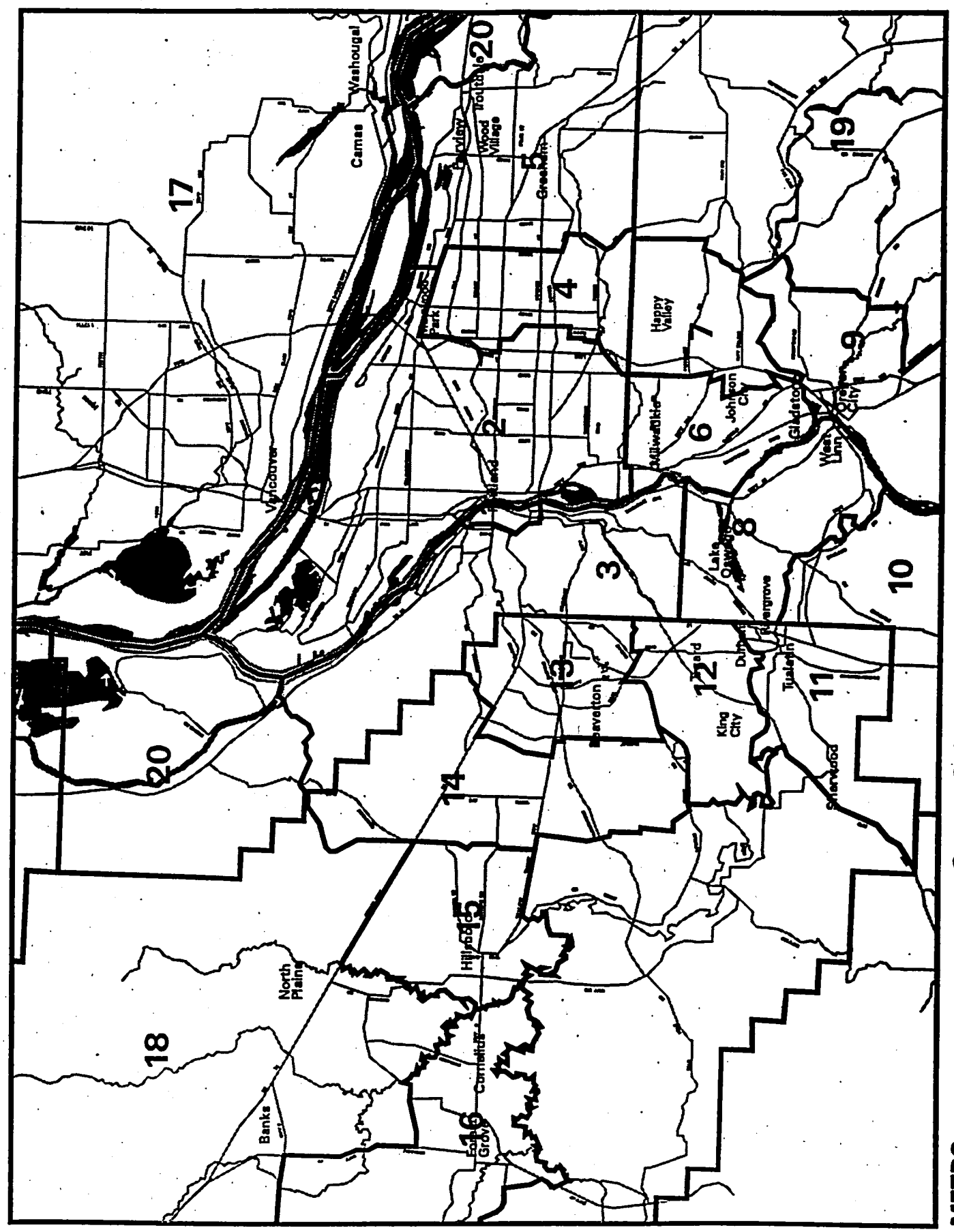
600 NE Grand Ave
Portland, OR 97232-2736
(503) 797-1700

Map 1

February 15, 1996

Map 2

METRO 20 District Subarea Growth Allocation



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We gratefully acknowledge and thank the members of the committee for their time and expertise in evaluating our work. METRO staff retains sole responsibility for any materials, content and opinion contained in the *2015 Regional Forecast.*

EXECUTIVE SUMMARY

RECENT DEVELOPMENTS

In recent years, regional growth has exceeded expectations of earlier forecasts. In particular, figures released for 1994 show population to be 39,000 ahead of the 2040 Base Case 2 estimate for the 1995 year. If population continues to surge ahead at present rates, in less than three years the region will reach the Base Case 2 forecast for the year 2000. As a result of this exceptional growth, there may be wide-ranging policy implications for regional planning and growth management.

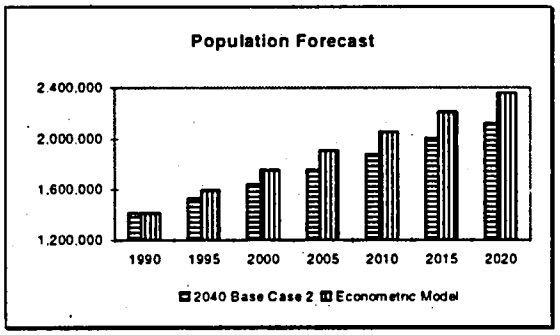

FIGURE 1 2040 Base Case v. Econometric Model Forecast

Portland's emergence as a magnet for high-tech investment will help to diversify and strengthen the regional economy. Already, we see several high-tech companies making major investments and several others still seeking locations. The region's location and attractiveness is also a strong draw for other types of businesses.

An attractive combination of abundant resources and favorable environmental amenities, and a distribution point for international export operations foster conditions for steady economic growth in Portland. The region's proximity to Pacific Rim nations makes Portland an ideal trading partner or go-between for U.S. or Asian import /exporters.

THE FORECAST PROFILE

Nationally, many observers feel that the Federal Reserve will be successful in engineering a "soft-landing". In the short run, the implication for the Portland economy suggests that the regionwide growth rate will tend to moderate with the slowdown of the U.S. economy.

Because of this area's relatively stronger economic conditions, the slowdown regionally will be less pronounced for this area. We predict regional employment and population growth to moderate in the near term.

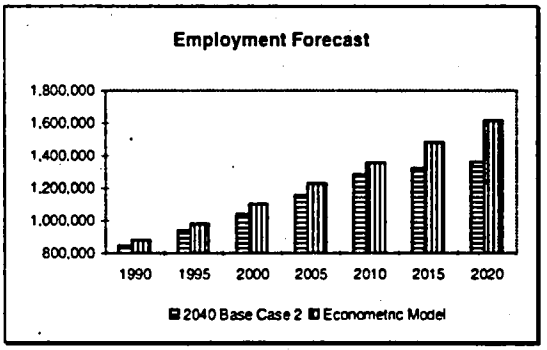

FIGURE 2 2040 Base Case v. Econometric Model Forecast

METRO's regional econometric model projects continuing solid employment and population growth. Favorable economic conditions will continue to fuel in-migration and sustain population growth. At the same time, high-tech investments will bolster manufacturing growth in the area. Combined with above-average in-migration rates, the service sectors are expected to enjoy continued robust growth. By the end of this decade, population is expected to reach 1.75 million – an increase of 150,000 people in 6 years. By 2015, the bi-state area is expected to exceed 2.2 million inhabitants,

an increase of 645,000 (between 1994 to 2015).

Turning to the long run, the emphasis of the regional econometric forecast is directed at the region's potential gross regional product (GRP) instead of near-term growth determinants such as changes in final demand. The region's potential economic output is conditional upon growth in its population and labor force, improvement in productivity, long-term investments, and the region's comparative economic advantage relative to other regional economies.

The econometric model employs three different U.S. macroeconomic scenarios:

- Moderate/Trend Scenario,
- High Growth Scenario,
- Low Growth Scenario

FIGURE 3
THE REGIONAL FORECAST
(1994 TO 2015)

	Annual Average Growth Rates		
	High	Med.	Low
Population	2.5%	1.6%	1.2%
Households	2.7%	1.9%	1.4%
Employment	2.8%	2.0%	1.5%
Per Capita Inc.	1.2%	1.0%	0.7%

to produce three separate and independent regional forecasts. The WEFA U.S. Moderate/Trend scenario is the basis of our assumptions in constructing the regional Medium Growth Outlook. The High and Low Growth U.S. macroeconomic scenarios are the basis of constructing alternatives to the regional Medium Growth baseline [7].

[7] The use of alternative economic scenarios is common practice when dealing with future uncertainty. It is an established means of helping to define the cause and range of the probable growth that a region could take under different circumstances.

FIGURE 4
REGIONAL FORECAST SCENARIOS
EMPLOYMENT

	2040	Econometric Model		
	Base Case	HIGH	MEDIUM	LOW
1990	847,671		856,000	
1995	938,862	985,100	979,700	966,700
2000	1,040,955	1,150,600	1,104,000	1,041,400
2005	1,154,148	1,321,800	1,228,500	1,135,000
2010	1,279,651	1,518,000	1,356,100	1,233,400
2015	1,321,160	1,723,300	1,486,600	1,319,400
2020	1,364,016	1,937,000	1,615,100	1,403,500

Population in the *2040 Base Case 2* is projected to increase an average of 1.4 percent a year. In comparison, computations made using the econometric model suggests that the *Medium Growth Outlook* should grow slightly faster, averaging growth of 1.6 percent a year. Average population growth in the long run could range as high as 2.5 percent a year in the *High Growth Scenario* or as low as 1.2 percent in the *Low Growth Scenario.*

Population growth will vary from year-to-year primarily depending upon net migration rates. In the short run, we anticipate faster population growth due to relatively

FIGURE 5
REGIONAL FORECAST SCENARIOS
POPULATION

	2040	Econometric Model		
	Base Case	HIGH	MEDIUM	LOW
1990	1,412,344		1,412,344	
1995	1,526,500	1,598,700	1,597,100	1,597,100
2000	1,640,000	1,824,700	1,756,700	1,695,300
2005	1,756,200	2,065,700	1,903,600	1,803,900
2010	1,877,700	2,333,500	2,055,900	1,925,400
2015	2,001,730	2,631,500	2,210,800	2,037,100
2020	2,121,900	2,951,800	2,363,600	2,128,600

conditions in the long run moderate, we expect population and employment growth to converge closer to a more stable and sustainable growth rate for the long run.

The one characteristic that each regional growth scenario shares in common is the absence of explicit business cycles[8]. The Medium Growth long run forecast really represents a trend or baseline growth by which the actual economy in the future is most likely to cycle around.

The long run factors which determine real growth influence the potential aggregate supply as opposed to demand. The high (and low) growth scenario(s) are constructed in a manner consistent with simulating the possibility of higher (or lower) growth based on fundamental changes in:

- regional productivity
- population and its determinants
- labor force
- investment activity.

The high (and low) growth scenario(s) do not represent absolute growth bounds, but rather frame the "probable" high (or low) growth trends the regional economy could take if the alternative conditions assumed actually materialize.

FIGURE 6
REGIONAL FORECAST SCENARIOS
HOUSEHOLD

	2040	Econometric Model		
	Base Case	HIGH	MEDIUM	LOW
1990	553,107		553,107	
1995	608,328	634,400	636,000	633,800
2000	665,112	729,900	705,900	678,100
2005	724,711	843,100	777,300	736,300
2010	786,608	968,300	852,000	798,900
2015	849,235	1,105,600	917,000	855,900
2020	909,157	1,256,100	1,004,100	917,500

* Population and employment projections in the case of the econometric model projections have been re-calibrated to compare with the 2040 Base Case 2 projections which include only the 4-county bi-state area (Clackamas, Multnomah, Washington in Oregon, and Clark county in Washington).

[8] The current business cycle is "played-out" in the short run before the forecast is blended into an expected long run forecast. The long run embodies the historical average growth of the regional economy with its many business cycle swings.

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THE REGIONAL FORECAST
PORTLAND-VANCOUVER METROPOLITAN AREA

A 20-YEAR OUTLOOK

VOLUME 1

INTRODUCTION

The technical documentation of the *2015 Regional Forecast* has been divided into two publications. This change was adopted because a new regional forecasting methodology was employed in response to calls for more economic detail and econometric rigor. The companion document, *The Regional Forecast and Urban Development Patterns*, spells out how the regional growth allocation for employment, population, households, income and age of head of households was distributed to METRO's 20 planning district subareas and smaller geographic estimates. This publication outlines the regionwide aspects of the *2015 Regional Forecast*, and the second publication explains the growth allocation and shows future urban development by census tract.

The purpose for this document is to describe the underlying economic and demographic trends, assumptions and justifications for the region's economic growth in the short run and the distant future. Therefore, regionwide growth trends and comparisons with respect to national growth projections[9] and various other Oregon state forecasts[10] are emphasized. This regional forecast features greater economic and demographic detail in terms of industry employment, income by source, population and age, and households by age of head than previous regional forecast publications.

The current regional forecast serves as the underpinning for urban growth management and transportation planning analysis of the future. METRO seeks public review and comment from business leaders, experts in the field and interested parties to help validate the regional forecast. Therefore, this document is intended to serve as the technical guide to the regional forecast for interested parties who want to examine the details behind the regional growth projections.

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[9] National projections are obtained from the WEFA Group, Inc. The regional forecast incorporated national growth rate assumptions from the WEFA U.S. Economic Outlook, Vol. 1 - Trend /Moderate Growth Scenario and Vol. 2 - High Growth and Low Growth Scenarios, Fourth Quarter 1994.

[10] The regional forecast is compared against state growth trends produced by the State of Oregon Department of Administrative Services, *Oregon Economic and Revenue Forecast*, Vol. XV, No. 1, March 1995; and the Joint Forecast produced by the Bonneville Power Administration and the Northwest Power Planning Council, November 1994.

In order to improve the planning and policy making of regional decision makers, the current regional forecast includes a presentation of two alternative regional growth scenarios in addition to a Medium Growth Outlook for the region. Often times a forecast can deviate from current projections based on slight shifts in fundamental economic conditions. In order to warn decision makers of possible risks and uncertainties, high growth and gow growth scenarios were constructed in conjunction with the more probable medium growth *2015 Regional Forecast* scenario.

All three regional forecast scenarios were constructed using the METRO Regional Economic Model. The METRO Regional Model is a quarterly-data, econometric model of the Portland-Vancouver economy. It was developed in-house by METRO staff and is maintained and operated in-house. The econometric model is METRO's first integrated economic and demographic model of the region and covers all of Clackamas, Multnomah, Washington, and Yamhill counties in Oregon plus Clark County, Washington. The model treats the region as a single economic entity; that is inter-county transactions and inter-industry commodity impacts among the counties are ignored. Also, we note that it is not a "shift-share" model and does not "share-down" from any existing state model. The METRO Model is a stand-alone economic model that features U.S. and international drivers combined with regional assumptions to forecast employment, income, population and household trends at the region-level.

The regional economic model is basically a top-down structural model. Its primary inputs are exogenous variables or drivers taken from the national economy. The model is essentially block recursive and can be conceptually divided into three major blocks: a pre-determined block for computing productivity, population, and households, a simultaneous block comprised of the main endogenous variables such as net migration, employment, income and wage rates, and a third block for post-determinant variables which do not feed back up to the simultaneous block. The METRO model is a long run econometric model which forecasts expected values for which alternative assumptions and scenarios can be constructed to test out future economic trends and other possible realizations.

The organization of this document begins with an overview of major economic drivers of the regional forecast. Section 1 summarizes the U.S. growth projections as the WEFA Group, Inc. economists and forecasters view the global and national economies.

The regional forecast is presented in Section 2. A table listing major high-tech investments under construction or still looking for possible site locations is discussed. High-tech growth is closely examined because of its anticipated strong impact on industrial growth in the forecast. Details of the regional forecast are presented in the Section 3, the Appendix.

Please carefully note that forecast figures of the region shown in the text and tables *excludes* Yamhill residents and employees. The appendix, though, includes Yamhill. This divide is due to the fact that the METRO Regional Economic Model performs its calculations based on the CMSA[11] designation, but in order to make comparisons with earlier forecasts, we recalibrate the forecast to match the SMSA.[12]

[11] The Consolidated METROpolitan Statistical Area includes Clackamas, Multnomah, Washington, Yamhill and Clark counties, 1983-1993.

[12] The Standard METROpolitan Statistical Area includes Clackamas, Multnomah, Washington, and Clark counties.

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SECTION 1

INTRODUCTION

How well a long-range outlook is accepted often depends on how well the forecast tracks with recent developments. If the forecast deviates significantly from well-known historical trends or its projections are wide of some near term benchmark, the reliability of the entire forecast is often called into question. As a consequence, we begin by carefully examining the assumptions and developments we anticipate for the near-term U.S. outlook. Before turning to results in the long run, we intend to "play-out" the current business cycle using information from the short run U.S. forecast.

PART 1
SUMMARY OF RECENT U.S. TRENDS

The U.S. is in its fourth year of expansion following the successful end of the 1990-91 recession. That recession was in part triggered by the conflagration in the Persian Gulf. The national economy has continued to show surprising strength despite efforts by the Federal Reserve Board to slow economic growth.

The data in June show that real or inflation-adjusted Gross Domestic Product (GDP) rose 4.1 percent for all of 1994, the fastest growth rate since 1984 and the second fastest rate since 1978. Industrial production increased 5.3 percent last year. It is becoming more evident that the domestic private investments made over the last several years are beginning to payoff in terms of higher output and productivity in the factories and business across America. Employment also rose 2.6 percent which helped push the U.S. unemployment rate down to 5.4 percent by the end of 1994. Meanwhile, the Consumer Price Index (CPI) showed remarkable constraint, averaging only a 2.6 percent increase for all of 1994, the slowest rate since 1986. However, the threat of higher inflation loomed over the economy as fearful investors and watchful Fed officials kept a weary eye on consumer prices and other intermediate indicators of future inflation.

Despite the fear, 1994 was a banner year for consumers. After a couple years of weak consumer sentiment, aggressive consumer confidence overtook the economy and spurred strong consumer expenditures. Home sales, construction and other interest sensitive industries benefited enormously from very low interest rates which have not been seen since the 1960's.

Fearful of higher future inflation, the Fed in early 1994 began to carefully ratchet up interest rates to preempt any chance that inflation would rise to significantly higher rates.

After nearly a year of nudging up interest rates, the economy appears to be on the brink of slowing down. Recent indicators show a mild slowing in economic growth which economists and other forecasters call a "soft-landing". Interest sensitive sectors may be the first industries to feel the slowing.

PART 2
THE SHORT-TERM U.S. OUTLOOK

AN OVERVIEW OF THE WEFA TREND/MODERATE SCENARIO

The national economy is at a key turning point. If the Fed over reacts, the national economy could fall into a period of slow growth or recession, or on the other side, if the Fed fails to react quickly enough, the economy will become over-heated and prices and inflation will pick-up increased momentum. Although there are some economic observers who believe that the economy will not successfully reach a stable and sustainable growth path, the national forecast assumed by the regional Medium Growth Outlook[13] takes the opinion that the Fed will be successful in engineering a soft-landing.

The short-term U.S. outlook has usually had a significant impact on business cycles and growth trends in the Portland-Vancouver economy. Historically, the regional economy has generally moved in step with the nation as a whole. At times, regional and national growth rates diverge, but on average, the regional economy tends to eventually mirror trends that develop at the national scale.

An important determinant of growth in the short run is the impact fluctuating interest rates have on interest-sensitive industries in the region. For example, rising interest rates shut down domestic private investments and lead to cut backs in production and output. This slow down carries through to households in the form of lower wages and income. The consumer sector tends to lower its consumption and late-cycle industries also cut back on output which further slows economic growth. If the Fed is successful, then the economy slows to a stable and sustainable growth path.

The table on the next page summarizes key components of real GDP for 1995 and expected values in 1996. The medium trend forecast developed for 1995 and beyond expects moderate slowing with growth to 2.5% as the impact of higher interest rates affect the housing market, auto, and business investment sectors.

[13] Only the Base Case U.S. macro and regional forecast assume this position. The high growth and the low growth scenario assume failure on the part of the Fed to achieve the predicted soft-landing scenario in the Base Case.

Key highlights in the short run are to. . .

- Expect one additional half-percentage point increase in the Fed funds rate in the next few months. Inflationary pressure will not abate, the Fed will have to cut interest rates though until mid-1996.
- Expect inflation to remain moderate as a soft landing unfolds during 1995, easing price pressures.
- Expect exports to Europe and Japan to increase sharply during 1995 and into 1996 as U.S. goods and services prove to be an exceptionally good value, given the dollar's weakness.
- Expect little, if any, change in tax policy at this time. A possible outcome is a set of modest tax cuts fully financed by spending cuts. Gridlock remains a distinct possibility.
- Expect no defense of the dollar from the Federal Reserve Board. The Fed's focus will remain on domestic policy.

TABLE 1

COMPOSITION OF REAL GDP

(PERCENT CHANGE, ANNUAL RATE)

	1995				1996			
	1	2	3	4	1	2	3	4
Gross Domestic Product	2.8	2.4	2.7	2.4	2.6	2.5	2.3	2.6
Consumption, total	3.6	3.0	3.2	2.4	2.3	1.5	1.6	2.0
Services	3.2	3.4	3.4	2.4	2.1	2.0	1.9	1.8
Durable	7.9	1.8	3.1	2.7	4.4	0.2	0.8	3.9
Nondurable	2.2	2.9	3.0	2.2	1.6	1.3	1.4	1.3
Domestic Investments	5.5	5.6	4.7	3.5	3.8	4.4	3.6	2.8
Residential	-2.5	-2.0	-2.4	-0.1	-2.2	-0.0	2.4	0.1
Nonresidential Structures	13.1	12.1	9.8	8.5	7.2	6.2	5.6	4.8
Office and Computer Equip.	15.2	14.9	12.5	11.3	10.5	9.2	8.9	7.6
All Other Plant and Equipment	14.9	13.0	9.7	8.5	6.7	5.4	4.8	4.6
Exports	8.3	8.4	8.7	9.5	9.6	10.4	11.0	11.2
Imports	8.8	8.7	7.5	5.8	5.9	4.8	5.5	5.2
Federal Gov. Purchases	-8.4	-9.1	-9.1	-5.9	-2.6	-3.1	-3.9	-3.5
State and Local Purchases	2.0	2.1	2.1	1.9	2.0	2.0	2.0	2.0

The WEFA Group, U.S. Long-term Economic Outlook, Volume 1 - Trend/Moderate Growth Scenario, Fourth Quarter 1994.

TABLE 2
REAL GDP FORECAST: 1995 TO 1997
(PERCENT CHANGE)

	1990	1991	1992	1993	1994	1995	1996	1997
GDP	1.2	-0.6	2.3	3.1	4.0	3.0	2.5	2.3

The WEFA Group, U.S. Long-term Economic Outlook, Volume 1 - Trend/Moderate Growth Scenario, Fourth Quarter 1994.

The U.S. economy has most recently been on the upside in this recent business cycle. If monetary policy and other economic conditions play out as expected, then the forecast of U.S. GDP is projected to slow to an annual rate of 3 percent in 1995 and sustain growth near 2.5 percent through to the end of short run forecast period.

Appendix, table 7, shows components which add up to Gross Domestic Product for the U.S. from 1990 through the end of the forecast in 2015.

CRITICAL RISKS IN THE SHORT RUN: HIGH GROWTH AND LOW GROWTH SCENARIOS

In the short run changes in interest rate policy have a significant impact on U.S. growth. We believe that the accuracy of the national forecast hinges on the interest rate assumptions and corresponding impacts on real domestic growth. There are two major variants to WEFA's *Moderate/Trend U.S. Outlook* which we believe will materially impact regional growth through at 1997. The two alternative scenarios, the *High Growth Scenario* and *Low Growth Scenario*, are constructed to take into account the different interest rate and growth assumptions.

TABLE 3
ALTERNATIVE GDP SCENARIOS: 1995 TO 1997
(PERCENT CHANGE)

	1990	1991	1992	1993	1994	1995	1996	1997
HIGH GROWTH	1.2	-0.6	2.3	3.1	4.0	3.3	2.9	2.7
LOW GROWTH	1.2	-0.6	2.3	3.1	4.0	2.6	2.0	1.9

The WEFA Group, U.S. Long-term Economic Outlook, Volume 2 - High Growth and Low Growth Scenarios, Fourth Quarter 1994.

■ **Alternative Scenario 1: High Growth (Low Inflation) Scenario**

What if inflation remained in check because of international competition and continued strong gains in productivity in the manufacturing and service industries. And economic growth remained above 3 percent per year. The Fed may choose to ignore fears of greater inflation and allow growth to proceed.

■ **Alternative Scenario 2: Low Growth Scenario**

Business Cycle Slowdown in 1996 and 1997

There are already indications that the economy is slowing down, but what if the economic signals that analysts are observing now do not reveal the full story. Housing starts were down in January and February, business sentiment appears to be sliding as the nation's manufacturers show signs of cutting back on investments. The economic expansion may have already reached its end and we just do not know it yet. If the Fed pushes interest rates up, as many Fed watchers believe they will this spring, then this last increase could reduce growth in interest-sensitive sectors and real GDP to below 2 percent a year.

or maybe . . . Recession in 1996-97?

If economic growth in the first half of 1995 remains significantly above 3 percent and there are clear signs of inflation turning up sharply, the Fed is very likely to rapidly raise interest rates above 8 percent (Fed Funds) to put a brake on growth. An 8 percent interest rate in late-1995 and early-1996 will likely tip the economy into a mild recession by the end of 1996. As soon as the Fed realizes its mistake, it will start to cut interest rates but it will be too little too late. In summary, this scenario produces a much sharper business cycle turning points in 1996 and 1997 which differs from the smoother fluctuations engineered in the WEFA U.S. Moderate/Trend scenarios (i.e., the soft-landing scenario).

PART 3
LONG-TERM NATIONAL PROJECTIONS

INTRODUCTION

The economic determinants of growth in the distant future are fundamentally different than those in the short run. There are important differences in the methodologies in preparing short run forecasts versus the long run. In the short run, the principal emphasis is attempting to accurately predict business cycle shocks that impact the rate of economic growth during the next few years. The long run analysis focuses on growth parameters that persist and produce economic change over a long period. Long run economic analysis is more a study of the long-range secular movement of components that explain the growth rate of aggregate supply, rather than fluctuations in final demand and consumption (business cycles).

The study of long run economic behavior focuses on the potential growth in GDP or the aggregate supply of the U.S. economy[14].

There are three U.S. economic scenarios considered: a Moderate/Trend scenario (medium or baseline growth scenario) , a High Growth, and a Low Growth scenario. They are merely extensions of the short run scenarios described earlier.

The one characteristic that each national scenario has is the absence of business cycles in the long run half of the forecast[15]. It is not that WEFA does not believe that business cycles will never occur[16]. Rather, the perspective is that business cycle turning points occurring far in the future are virtually impossible to predict accurately. So a trend scenario is constructed in which the real economy grows at historical averages in relation to population growth. Historical averages embody the business cycle. A trend scenario does not represent the economy as growing along a "full employment" path, but rather as growing with a certain amount of slack in it. In that sense, the trend scenario represents the average growth of the economy over many business cycles.

In order to construct the high growth scenario (or low growth scenario), key assumptions are modified from the trend scenario in such a way as to produce a more optimistic (or pessimistic) scenario result. The alternative scenarios are asymmetric, which means that projections of potential output, employment, income, etc. are not symmetrical. Appendix, tables 7 through 10 describe in detail the principal variations of the three national growth scenarios.

OVERVIEW OF THE MODERATE/TREND U.S. SCENARIO

In the long run, all factors of production become variable. Therefore growth in the long run becomes a function of the growth rate of factors which go to produce the nation's total output. The discussion of the assumptions supporting this U.S. macroeconomic trend forecast focuses on the key factors of production that determine potential output and aggregate supply of the nation.

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[14] Potential GDP is a measure of an economy's ability to produce goods and services when all the resources of the economy are fully utilized and efficiently employed. The potential GDP or aggregate supply is ruled by such supply factors as population growth, labor force participation, domestic investment, productivity growth, monetary and fiscal policies, and international factors of production and price.

[15] The U.S. Long-term Outlook by WEFA merges information and assumptions used in their short run U.S. Economic Outlook, 1994-97, December 1994. The short run forecast incorporates cyclical business cycle impacts.

[16] METRO staff concurs with this WEFA opinion, so also does not incorporate any business cycles in the distant future. Although in the near term, the regional forecast attempts to carry out the current business cycle, thus reflecting the region's response to the ongoing national business cycle.

Population during the forecast period is expected to grow an average of 0.9 percent per year. The trend scenario adopts the current demographic assumptions of the U.S. Bureau of the Census *Middle Series Population Projections of the U.S.*

- Immigration is placed at the Census Bureau's middle series, 876,000 per year.
- The fertility rate is set to edge up to 2.14 children per woman in 2020 from 2.05 in 1995.
- Life expectancy at birth for men rises to 75.0 years and for women to 81.9 years by the end of the forecast period from a 1995 life expectancy of 72.8 and 79.7 years, respectively.

Total population increases, but the age distribution is expected to increase. Within 20 years, almost all of the baby boomers will have entered their 50's or 60's. By the year 2020, the share of elderly (65 years and over) will rise to 14.9 percent from 11.9 percent in 1990. Within working-age adults, the share of individuals 45 years and over increases to 25.5 percent of the total population from 18.7 percent. The share of young working adults shrink to 32.3 percent in 2020 from 39.1 percent beginning in 1990. The share of children under 20 years old also declines to 27.1 percent from 30.3 percent.

As the population ages, we anticipate changes in demand for goods and services. The tastes and preferences of older adults are vastly different than those of younger adults. Older adults tend to be more affluent because they have had an entire lifetime to accumulate assets and wealth. Consequently, they will be less inclined to accumulate more fixed assets or goods such as homes, furniture, and other material goods needed to maintain a household.

Because the distribution of the age cohorts is shifting up, a more mature population is likely to begin shedding assets, purchasing fewer durable goods in the traditional sense of the life-cycle hypothesis. Instead, an older age populace is likely to spend more on services. For example, health care services, financial services, and other services catering to leisure activity are more likely to benefit from a greater share of people poised for retirement or are already in retirement.

Improved mortality rates and greater life expectancy's may mean a more mobile and active senior population. If current tastes and preferences hold true for future seniors, then we may see a greater increase in demand for leisure activity scaled for them. Areas with warm temperate climates and activities aimed at active seniors may see strong regional growth. And industries which could directly benefit could be financial sectors which help seniors plan for retirement or invest their assets, personal service industries which cater to the needs of active seniors or ones requiring more individual nursing care, the health care industry, and tourism related industries.

Employment growth depends on increases in the size of the **labor force** (i.e. population growth and labor force participation rates) and changes in industrial composition. The proportion of service jobs in the forecast period is expected to rise at the expense of traditional manufacturing jobs. As the next chart illustrates, manufacturing employment as

a share of total establishment employment has been on a steady decline from a 31 percent mark in 1960 to 17.4 percent in 1990. In the forecast period, the share of employment in manufacturing is expected to steadily fall to nearly 10 percent by 2015.

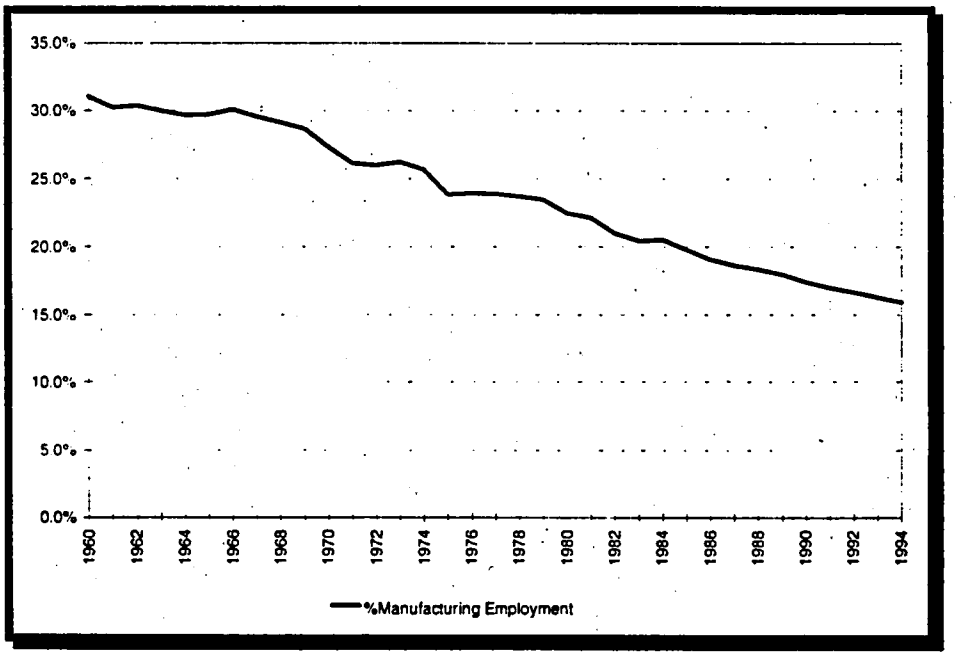
The decline in manufacturing has been a long running secular trend. Several major reasons account for this:

- productivity in the manufacturing sector has exceeded that of the overall economy,
- foreign competition has drawn many traditional low-skill, labor intensive industrial jobs to overseas markets where labor costs are less,
- new sophisticated high-tech equipment has replaced tedious and repetitive jobs,
- and finally changes in demographics in the U.S.

As new jobs in manufacturing become more scarce, the profile of new jobs shifts to trade and other service related sectors. The fastest growing industries are expected to be in the service industries and retail trade.

CHART 1

Share of U.S. Manufacturing Employment



However, faster growth does not necessarily mean the same type of growth as we have experienced in the past. New technology and computerized automation, changes in demographic composition, and global competition is expected to influence future growth in nonmanufacturing.

With the aging of the population, new **financial services** will emerge in places which cater to seniors. Seniors tend to have relatively greater financial assets than younger adults.

Declining interest in traditional pension funds is spurring greater attention in stocks and mutual funds which are likely to boost investment counselors and other financial advisors. However, the current wave of bank consolidations and mergers is expected to constrain some growth. Moreover, financial institutions, namely banks, appear to be encouraging less face-to-face transactions with its customers. Some even forcing customers to use automated devices. In the short-range, we believe industry consolidations will strengthen the industry by eliminating weaker competitors thus making the industry as a whole stronger in the long run. Automation and productivity will in the long run also improve growth prospect of this industry.

The **wholesale trade** industry is yet another nonmanufacturing sector undergoing change. The industry has been pressured to switch to the more profitable just-in-time inventory management practice. A few very dominant and very large retailers/distributors is spreading change across all wholesale distribution chains. These retailers will not maintain large inventories due to advanced inventory management schemes. Fewer wholesale jobs are expected as these mega-retailers skip over middle-distributors and are able to deal directly with manufacturers.

The transportation, communication and public utility sectors are expected to undergo major changes too. Deregulation in trucking, communication and electric utilities is expected to create major shakeouts and consolidations. In trucking, deregulation may initially create more jobs and increase interstate competition, but eventually like the airline industry the smaller and less profitable companies will disappear. Furthermore, improvement in intermodal technology will slow employment growth in transportation.

Advances in telecommunication services may create market opportunities and competition in industries which formerly were protected by monopolies. Long distance telephone service, cellular phones, and personal communication device (PCA) technology are poised to enter a new era of competition which will cause once protected companies like the *Baby Bells* to continue shedding excess employment.

The electric generation industry is also fast approaching the day in which they will be deregulated. Already independent power producers (IPP's) are encroaching on the turf of electric utilities and offering better electricity rates to favored electric-intensive firms. Several state Public Utility Commissions (PUC), led by California, are planning to open industrial and commercial markets to competition and eliminate local power monopolies. Plans are underway to open up residential markets to competition as well. Although this is not yet widespread throughout the nation, the threat of open competition is causing some utilities to reposition themselves to compete with a smaller workforce.

Productivity will play a key role in the future. Productivity slowed in the 1970's, but has since rebounded in the 1980's and 90's. Prompted by the 1980-82 recession, businesses took it as an opportunity to retool and increase overall capital-to-labor ratios. Also, global competition has forced many industries to cut labor costs which in-turn meant

investing in labor-saving technology. The manufacturing sector was the first to benefit from higher productivity, and as a result employment growth suffered.

The service sectors did not initially benefit from the technology, but now that the massive investments in computer systems are in place the service industries are beginning to see the benefits of increased automation. At first many service industries ran parallel systems, the traditional manual system and the computer-based system, but are now eliminating the duplication of the old manual system. Furthermore, the installment of computer systems was performed on a piece-meal basis which lowered the productivity of these systems. But now that these systems have been fine-tuned and in-place companywide, the extra value from computer technology is beginning to fulfill the earlier promise of increasing productivity.

In the future, the service sector is likely to benefit from deregulation too. Deregulation in many sectors will remove a shield which protected them from direct competition and will force them to become more efficient. Deregulation will encourage higher capital-to-labor ratios. Employment growth may suffer somewhat from productivity, but faster and more profitable growth will in the long run be a benefit to employment.

Although it is anywhere but certain that productivity in the manufacturing and service sectors will continue, the WEFA U.S. Moderate/Trend scenario assumes continued growth in productivity near current rates. Overall, nonfarm productivity is growing between 1.5 to 2.0 percent a year. Recent evidence suggests that the outlook is good.

In summary, the aggregate supply of the economy (i.e. the overall potential GDP or size of the economy) is dependent upon the increase in the labor force, the growth of the capital stock and productivity improvements. Nonfarm productivity will continue to improve because of global competition, deregulation and the build-up in computer technology in the past decade. Growth in the labor force will depend on demographic trends already underway in the U.S. population.

OVERVIEW OF THE HIGH GROWTH U.S. SCENARIO

The High Growth scenario calls for faster economic and demographic growth as compared to the U.S. Moderate/Trend growth scenario, starting in 1995. Long run inflation-adjusted GDP is determined primarily by faster labor force growth and productivity growth. In this high growth forecast, **inflation-adjusted GDP** is anticipated to average 2.8 percent growth per year through the end of the forecast in 2020. **U.S. population** is expected to rise at an average annual rate above 1.1 percent per year, the **civilian labor force** at 1.5 percent, and **productivity** at 1.6 percent (measured by the change in the ratio between the Federal Reserve Board's Industrial Production Index and U.S. establishment nonfarm employment).

The high growth scenario assumes that net immigration, fertility, and life expectancy will be higher than the trend scenario. The result is faster **population** growth in the future. U.S. population reaches nearly 350 million people in 2020 as compared to 250 million in 1990. Components adding to the higher growth scenario include:

- 375,000 more **immigrants** than the U.S. Moderate/Trend scenario,
- a rise in **fertility** from 2.05 in 1991 to 2.49 children per woman by 2020[17],
- **life expectancy** for men is expected to rise to 77.2 years and women 84.5 years.

The employment outlook in the long run has the growth rate in the civilian labor force matching the rate of growth in **establishment employment.** Both rates of growth average 1.5 percent per year through 2020. The average length of the **work week** is unchanged as compared to the U.S. Moderate/Trend scenario. Productivity is higher in the High Growth scenario which helps moderate future inflation which is expected to be below the U.S. Moderate/Trend inflation rate scenario. Higher productivity naturally leads to higher inflation-adjusted **wage rates**, but the higher real wages are produced by lower inflation rather than by higher nominal wage growth. Future **oil prices** are also assumed lower in the High Growth scenario. They are expected to decline 2.2 percent per year in real terms. The average nominal price of oil in 1994 was $15.50 per barrel, by 2020 the nominal price rises to only $20 a barrel. This is significantly less than the 2020 price of $50 a barrel assumed by the U.S. Moderate/Trend scenario.

A faster growing national economy will allow federal, state and local governments to grow and spend more than in the U.S. Moderate/Trend growth scenario. However, the **fiscal expenditures** in government is a shrinking share of the U.S. economy in the future. Allowing for faster personal income growth, tax receipts will exceed government spending, thereby producing a surplus which will bring down the total government debt. **Monetary policy** is assumed to be accommodative in the future to keep nominal GDP growing at a steady rate over the forecast. Also assumed are lower **interest rates** than in the U.S. Moderate/Trend scenario.

On the demand side of the economy, the low inflation assumption means that real interest rates can drift lower in the High Growth scenario which in turn will help bolster private investments. **Housing starts** will average between 200,000 to 400,000 more units per year than in the U.S. Moderate/Trend. Business investments will be higher, led **by producers' durable equipment expenditures** (PDE). Because real incomes and population growth are higher, household consumption will be slightly higher on an average basis.

OVERVIEW OF THE LOW GROWTH U.S. SCENARIO

[17] The average replacement rate is about 2.1 children per woman in the U.S. The fertility rate assumed in the high growth scenario begins to exceed the replacement rate in 1995.

The Low Growth scenario constructed for the U.S. reflects more pessimistic assumptions about growth in the future than in the U.S. Moderate/Trend scenario. The principal aspect of this forecast is that **inflation-adjusted GDP** is expected to grow at an average of below 2.0 percent per year through 2020. Over the same period, the **civilian labor force** will rise only about 1.0 percent per year and **productivity** will remain virtually unchanged from now.

On the supply side, the lower growth scenario assumes that net migration, fertility, and life expectancy will be lower than in the trend scenario. As a result, U.S. **population** by the end of the forecast is projected to be about 50 million below the population figure estimated in the U.S. Moderate/Trend scenario for an annual average rate of only 0.4 percent growth per year. The differences in the population forecast are as a result of lower demographic expectations:

- net migration is 439,500 lower in each year, relative to the U.S. Moderate/Trend,
- the fertility rate will drop from 2.05 children per woman in 1991 to about 1.8 in 2020[18],
- life expectancy is less than in the U.S. Moderate/Trend scenario – male life expectancy slides to 71.9 years in 2020 from 72.8 years in 1990; female life expectancy slips to 79.2 years from 79.7 years.

The employment outlook calls for slower growth due to a combination of lower population and virtually no increase in labor force participation rates. The **civilian labor force** and **establishment employment** is projected to average 1.0 percent growth per year. Growth will be constrained by fewer jobs and a general unwillingness of businesses to hire more employees. The average number of hours in a **workweek** is virtually unchanged relative to the trend scenario.

Nominal **oil prices** in the Low Growth scenario will rise 7.0 percent per year (or 3.0 percent in real terms) through the forecast period. The price per barrel of crude will rise to above $90 in 2020 from an average of $15.50 in 1994. This could happen if the OPEC oil cartel is able to organize an effective means of keeping worldwide production below market demand. This also assumes that virtually no significant non-OPEC oil reserves are discovered.

Federal, state and local governments will purchase relatively fewer goods and services in a slower growing economy, but since real personal income will grow slower than **government spending** the deficit will widen. **Interest rates** will be slightly higher in this scenario than the trend in part due to some "crowding out" effect and because inflation is assumed to be at higher rates.

Prices and wages are higher in the Low Growth scenario mainly due to higher oil prices and lower rates of productivity growth. The average **wage rate** is higher because of

[18] The fertility rate over the entire forecast period is well below the replacement rate for the U.S. population.

inflation, but lower productivity will naturally lead to lower real wages. Lower real growth and productivity will put more upward pressure on wages and prices.

Since interest rates are higher, residential and business **investments** are expected to be lower than in the trend scenario. Also, a slower growing economy and population does not need to invest as much in capital so investments across the board will be less. Housing starts will trend out to be about 100,000 to 250,000 units lower than in the trend. Business fixed investments is projected to rise only 3.4 percent per year through 2020. Lower real wages will tend to limit business' desire to invest in labor-saving equipment.

Finally, **consumer expenditures** will be constrained by the slower growth in real income and population.

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SECTION 2

INTRODUCTION

The regional forecast is really made up of three separate sets of projections: a Medium Growth scenario (or baseline), a High Growth scenario, and a Low Growth scenario. All three regional forecasts employ national (and international) assumptions obtained from The WEFA Group, Inc.[19] WEFA's Moderate/Trend scenario, High Growth, and Low Growth scenarios are individually folded into the METRO Regional Model to produce three separate forecasts: the Medium Growth Outlook, High Growth, and Low Growth scenarios of the region. The assumptions embodied by each WEFA national forecast contain the principal exogenous drivers for each regional growth scenarios.

PART I
REGIONAL DEVELOPMENTS

OVERVIEW OF THE REGIONAL ECONOMY

Population and employment have been rising rapidly since 1988. During this period, the Portland-Vancouver area added over 250,000 individuals or an average of 2.5 percent growth per year. Of the 250,000 new Oregonians, over 188,000 (or 75 percent) migrated here from elsewhere. The number of new **jobs** added during this period was just over 228,000 or an average increase of 3.2 percent per year.

The region's economy closed out the 1994 year on a very strong note; the **unemployment rate** fell to 3.7 percent in December from 6.0 percent in January. Total nonfarm employment[20] rose 4.2 percent in 1994[21].

[19] The WEFA Group, U.S. Long-term Economic Outlook, Volume 1 - Trend/Moderate Growth Scenario, Fourth Quarter 1994; Volume 2 - High Growth and Low Growth Scenarios, Fourth Quarter 1994.
[20] METRO employment is calibrated to the Bureau of Economic Analysis measure of nonfarm employment which includes nonfarm wage and salary jobs, nonfarm proprietors, self-employed, domestic workers, family employees, and other uncovered jobs.
[21] Preliminary estimates of Portland-Vancouver employment show an increase of 4.4 percent in 1995 and the unemployment rate at the end of December falling to 3.4 percent. Portland State CPRC reports population growth slowed in Portland to about 1.9 percent, citing stronger growth in California as the reason for slowing population growth in Oregon.

CHART 2
Nonfarm Employment
in the Portland-Vancouver Area

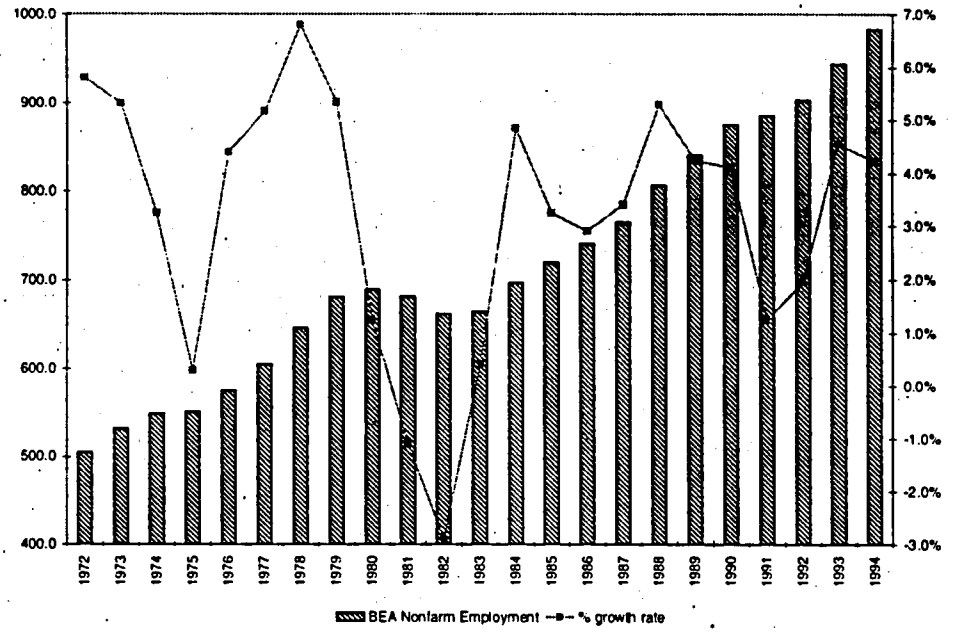
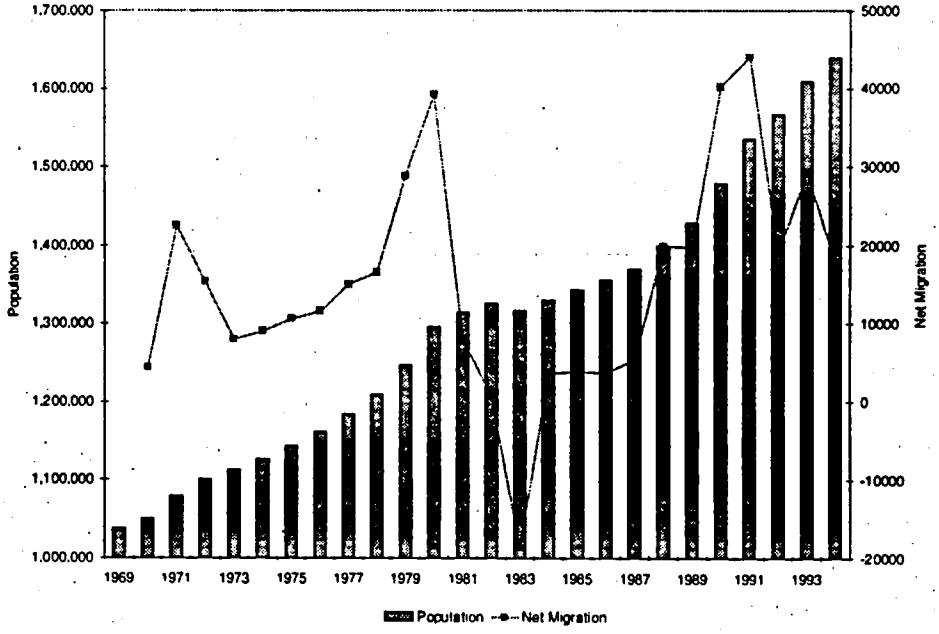


CHART 3
Population and Net Migration
in the Portland-Vancouver Area



The area's **high-technology** sectors[22] continued to expand quickly, rising 6.6 percent in employment in 1994, and 4.3 percent in 1993. Portland's primary and fabricated **metal** industries posted a surprisingly strong 5.6 percent rebound in employment from a year ago. The **construction** industry, braced by strong single-family housing demand and very low interest rates, led all sectors last year with an increase of 9.5 percent in employment. **Services** and **trade** continued their strong growth last year, 4.4 percent and 2.7 percent, respectively.

Significant High-tech Developments

The region's embracement of high-technology shows little sign of slowing down anytime soon. The global outlook for computers, semiconductors and related products suggests that the area's manufacturers and research firms will have plenty of interested buyers.

TABLE 4
Major High-Technology Expansions

Confirmed Expansions

Company Name	METRO Area Site	Product	Investment	Jobs
Epson Portland Inc.	Hillsboro	printers	$15 million	500 by 1996
Fujitsu Microelectronics		memory chips	$1.03 billion	445 by 1998
IDT	Hillsboro	computer chips	$800 million	975
Intel Corp.	Aloha	microprocessor	$705 million	300
Intel Corp.	Hillsboro	microprocessor	$2.2 billion	1,400
Linear Technology	Camas, WA	analog devices	$25 million	330
Sharp Lab of America	Camas, WA	R and D	$8.0 million	100
LSI Logic	Gresham	computer chips	$4.1 billion	400 by 1997; 2000 by 2012
SEH America	Vancouver	silicon wafers	$700 million	600
Siltec	Salem	silicon wafers	$300 million	400
Wacker Siltronic	Portland	silicon wafers	$240 million	400

Still Looking at Possible Sites in the Portland Vicinity

Company Name	METRO Area Possible Site	Product	Investment	Jobs
NEC Corp.	Hillsboro	memory chips	$1 billion	800
Samsung Electronics	Gresham	memory chips	$1.5 billion	1,200
Silicon Systems	Portland	computer chips	$750 million	1,000
Toshiba America, Inc.	Hillsboro	memory chips	$1 billion	300
Japan Aviation, Ltd.	Tualatin	aviation parts	n.a.	300

[22] Standard Industrial Classification: 35 - Nonelectrical Machinery, including computers; 36 - Electrical Machinery, including semiconductors; 38 - Instruments.

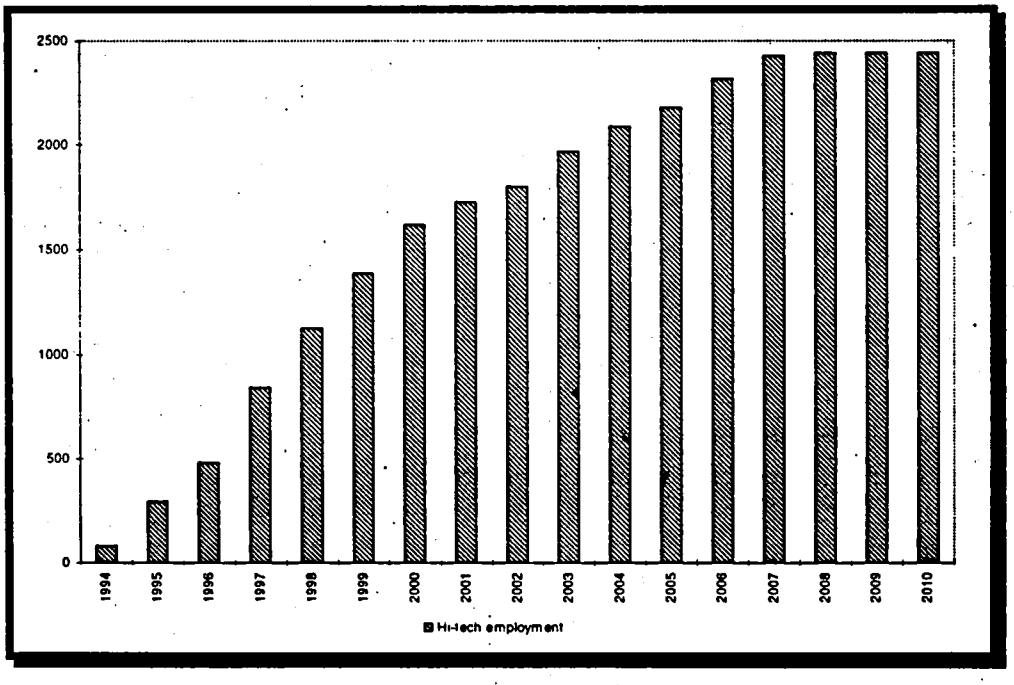
High-tech companies from around the world are preparing to meet future semiconductor demand. At least ten major companies are committed to expanding their research and manufacturing capacity in the area (see table 4). The Portland area has been highly successful in attracting new industries because of its environmental amenities, such as good water supplies, relatively well skilled and talented workforce, recreational advantages, favorable tax incentives, and closeness to Silicon Valley and its proximity to Pacific Rim markets. At least five other firms are still looking at locating a plant here.

For which we have detailed information, the Intel-Aloha and IDT plants now under construction, the companies have announced that they will begin hiring and construction will continue over the next 5 years. At the IDT and Intel-Aloha projects, full employment is not expected to be attained until the year 2000, at which time about 1,055 permanent high-tech jobs will have been added into the region. The Intel-Hillsboro project is scheduled to add another 450 permanent jobs by 2000, but is not expected to reach its full employment until 2009. Construction activity will continue through to 2011. The second Intel project will incrementally add another 1,000 jobs on top of the other 1,500 high-tech jobs created earlier.[23]

CHART 4

Direct Employment Impact

from the IDT and two Intel Investments



[23] Economic impact statements were obtained from the Oregon Economic Development Department under the Strategic Investments Program (SIP) application process.

SIP Application, Intel Corporation (Aloha Campus Expansion), submitted to the Washington County Board of Commissioners, Section 5, pp. 1-3, July 15, 1994.

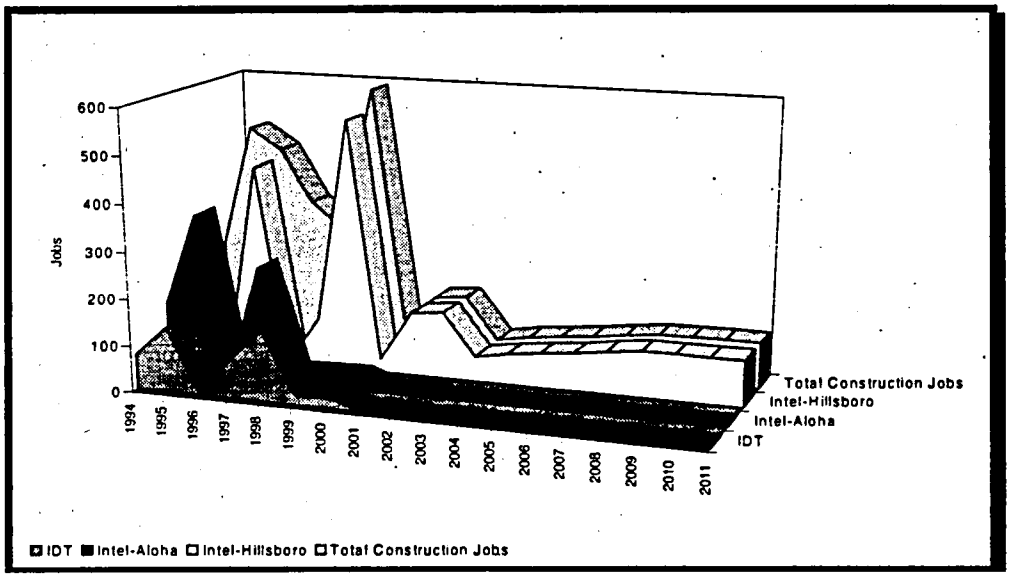
SIP Application, Integrated Device Technology (IDT Hillsboro Investment), submitted to the City of Hillsboro and the Washington County Board of Commissioners, Section 5, pp. 1-3, July 26, 1994.

The construction industry also benefits from the high-tech expansions. Activity surrounding these projects will also add to the local economy. Each company has announced that their projects will come on line in two major phases. As it happens, the timing of each phase of construction is offset in each year such that the added construction employment for each project will tend to average between 300 to 600 additional jobs[24]. If current expectations are accurate, then construction activity at these three plants will bolster construction employment through to the end of this decade. If, however, the demand for microprocessors and memory chips crashes, then construction plans could suffer later in the decade.

CHART 5

Proposed Construction Employment Impact

(IDT and Intel Projects only)



In total, the investment in plant and equipment announced in the area adds to over $10 billion dollars distributed over the next 10 years. However, do not expect the entire amount to be spent in the Oregon economy. About 20 percent will benefit the local construction industry. The remaining 80 percent of the investment will go to purchase of high-tech manufacturing, research and testing equipment. It is estimated that Oregon and local wholesalers will have a **very minor** piece of the equipment sales. The region, instead, will gain in terms of new jobs. Employment gains (see chart 4) from these projects alone are estimated to exceed 7,000 jobs, not including smaller suppliers which locate near the high-tech firms. Also, additional jobs will grow to surround the high-tech developments in order to satisfy trade and services demanded from the boom in employees and their families.

SIP Application, Intel Corporation (Hillsboro Technology and Manufacturing Campus), submitted to the Washington County Board of Commissioners, Section 5, pp. 1-3, Oct. 4, 1994.

[24] see footnote above.

PART 2
THE REGIONAL FORECAST
LONG-TERM MEDIUM GROWTH SCENARIO

OVERVIEW OF THE MEDIUM GROWTH SCENARIO

The Medium Growth (baseline) Regional Outlook is constructed based in part by assumptions derived from WEFA's Moderate/Trend U.S. scenario. Demand for the region's products and services is connected directly to the growth rates and economic conditions projected by the U.S. macroeconomic forecast. The regional forecast depends on macroeconomic drivers and aggregate supply assumptions obtained through the U.S. outlook.

Future population growth is benchmarked to the region's current fertility and survival rates, and are also tied to the projected rate of change in the U.S. Bureau of the Census middle series natality and mortality rates[25]. Increases in regional household formation are linked to the same U.S. macroeconomic outlook. Changes in productivity (or technological change assumptions) are connected to the assumptions included in WEFA's industrial economic model. International assumptions, principally through a U.S. trade-weighted and inflation-adjusted exchange rate, also play an important role in the regional industries that have strong economic linkages to overseas markets.

During the last 25 years, employment and population averaged nearly 3.1 percent and 1.9 percent growth per year. However, over this period, growth has been very uneven. The economic and population trends can be divided into three distinct periods of growth. The 1970's can be characterized as an era of rapid economic and demographic growth for this region. The early to mid-1980's was span of slow or no growth. And the last seven years has been a period of rapid resurgence.

TABLE 5
Economic and Population Growth in the Portland-Vancouver Area

	History			Forecast
	1970-79	1980-86	1987-94	1994-2020
Employment	4.3%	1.2%	3.6%	2.0%
Personal Income (in 1987 $)	5.0%	1.0%	4.3%	2.7%
Population	2.1%	0.3%	2.6%	1.6%

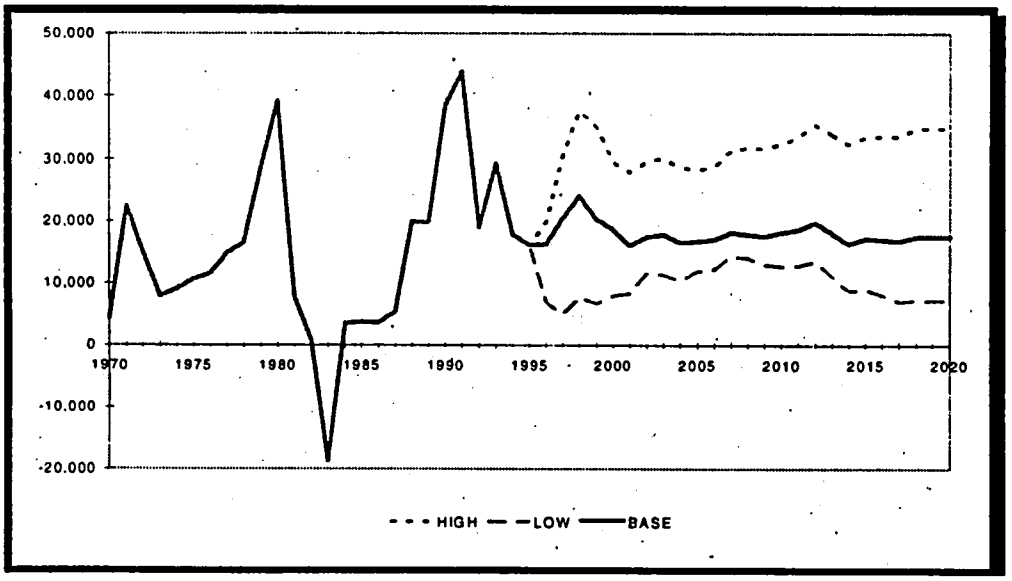
[25] WEFA's moderate/trend U.S. outlook assumes the same set of natality and mortality assumptions as in the U.S. Census middle series projections.

FORECAST SUMMARY

In the short run, cyclical factors will continue to influence population growth. Principally, net migration is anticipated to fluctuate above historic averages because of continued economic weakness in California. The health (or decline) of the California economy plays an important role in the number of migrants fleeing that state. In recent years, the collapse in California real estate prices, closure of military bases, and downsizing of the state's aerospace and technology sector has motivated many displaced workers and families to flee north into Oregon. The impact of such a large increase in this region's population has helped stimulate growth in the region's economy. As the California business cycle plays itself out, the short run forecast is merged into the long run when migration and population approach closer to moderate growth rates.

Long run population growth is projected to average about 1.6 percent per year, although growth in individual years will show up unevenly. In the short run the average growth rate approaches closer to 2 percent a year. The principal driver in the short run continues to be stronger than average net migration rates. Migration rates are assumed to begin tapering off as the regional economy moderates and the California economy shakes off the effects from the last recession. In the medium trend scenario, regional net migration bounces around 15,000 new migrants a year – about the same as its historical average.

CHART 6
Regional Net Migration Scenarios
Portland-Vancouver Area



Employment growth in the long run tends to be closely linked to population growth as well as national economic trends. Employment is projected to increase an average of 2.0 percent per year through the end of the forecast period. Stronger population growth and higher demand in the U.S. should carry the regional economy ahead at an even faster pace in the short run. We estimate that nonfarm employment will increase around 2.5 percent a year. However, employment growth will be distributed unevenly across the various industries in the region (see table 6).

TABLE 6a

Manufacturing Employment by Industry
(Portland- Vancouver Economy)

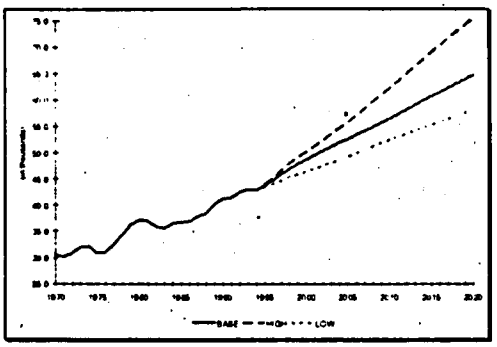
Industries	Average Annual Employment Growth Rate History (1970-1994)	Forecast (1994-2020)	Percentage of Regional Manufacturing Employment in 1994
HIGH GROWTH			
Printing and Publ.	3.7%	2.0%	7.7%
Electronics	3.4%	1.8%	21.8%
Industrial Machinery	3.7%	1.6%	13.7%
MODERATE GROWTH			
Other Nondurables	3.3%	1.3%	5.7%
Metals	1.0%	0.8%	13.5%
Other Durables	0.5%	0.6%	6.1%
Food Processing	-0.5%	0.5%	7.4%
LOW GROWTH			
Transp. Equipment	1.5%	-0.6%	8.2%
Paper and Pulp	-0.5%	-0.9%	5.5%
Textiles and Apparel	-0.9%	-1.1%	4.0%
Lumber and Wood	-1.3%	-1.3%	6.4%

Electronics: Electrical Machinery and Instruments
Other Nondurables: Chemicals, Petroleum, Rubber and Plastics, and Leather Products
Other Durables: Furniture, Stone, clay and glass, and Misc. manufacturers

The number of manufacturing jobs will grow relatively slower than nonmanufacturing. Manufacturing is expected to average 0.9% growth per year through the entire forecast period, although in the near term growth is predicted to be closer to 2 percent a year. Job growth in the high-tech sector is expected to lead this above average manufacturing. growth. Nonmanufacturing job growth will dominate in the future. By the year 2020, we anticipate close to 9 out of 10 jobs will be in nonmanufacturing. The growth rate in the short run is expected to average above 3 percent a year, although in the long run, it is expected to average closer to 2 percent a year.

Total personal income adjusted for inflation will tend to reflect the same changes as regional employment growth. This is largely due to the fact that over 60 percent of total personal income is derived from earned wages and salaries. Over the long-term, real personal income is expected to rise 2.7 percent a year, although year-to-year growth will vary somewhat. In the short run, due to relatively robust economic growth, real personal income will increase an average of 3.6 percent a year. Real per capita income presently stands near $17,600. Over the next three years, it is expected to rise another $1,000, or an average increase of 1.7 percent a year. However, over the remaining years of the forecast, the rate of an average person's increase in income is expected to slow to about 1 percent a year.

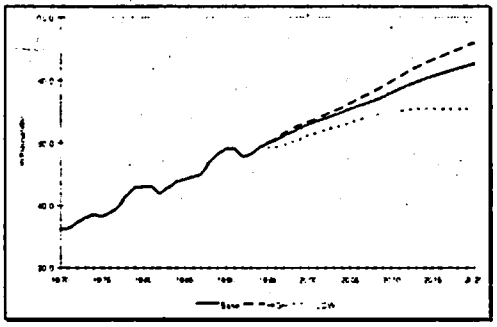
Overall, we feel that the region will outperform the nation as a whole, partly because of the region's strength in attracting and maintaining high-technology firms, more abundant resources and attractive environmental amenities, faster population growth, and closer proximity to trade routes with faster-growing Pacific Rim nations.



This historically stable sector could undergo several structural changes in the future:

- Deregulation and competition in the electric generation industry.
- New breakthroughs in communication technologies.
- New competition in the communication industry.
- Changes in intermodal transportation technology.

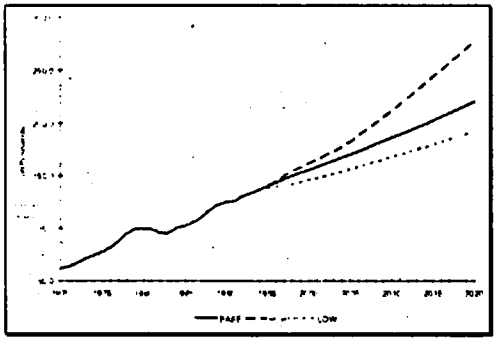
CHART 7
Transportation, Communication and Public Utilities (SIC: 40 to 49)



The region's wholesale trade industry will continue growing. Portland's role as a regional distribution center will offer ample growth opportunities.

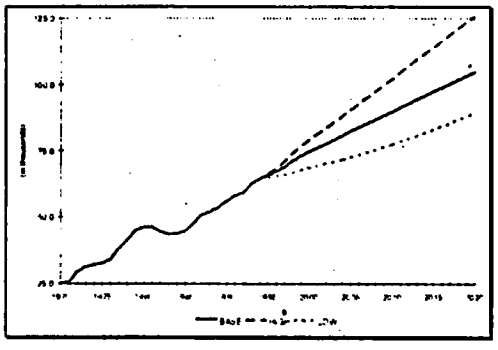
- However, watch for changes in intermodal transportation; this could have major ramifications among rail, sea, trucking and drayage providers.
- New inventory management techniques could also change how goods are distributed.

CHART 8
Wholesale Trade (SIC: 50 and 51)



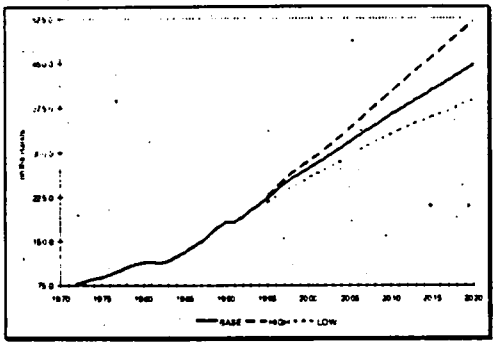
The retail trade industry is a diverse and expanding sector. Industry employment will continue to increase, but at a relatively slower pace than historical standards. Demand for retailing services depends on people's ability and willingness to spend. Income and population growth are projected to rise more slowly during the next 25 years than in the previous 25 years. Technology will constrain job growth.

CHART 9
Retail Trade (SIC: 52 and 59)



The FIRE industry is anticipated to continue along its current growth trend. Despite attention directed at possible consolidations in the financial services in the U.S., regional FIRE employment is not expected to be materially impacted by mergers and acquisitions.

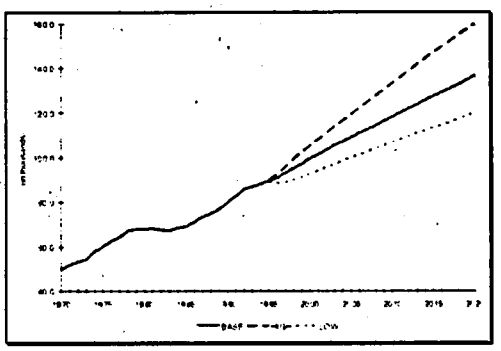
Chart 10
Finance, Insurance and Real Estate (SIC: 60 to 67)



The service sector accounts for the largest majority of all employment growth in the region. Growth in this sector is expected to remain strong.

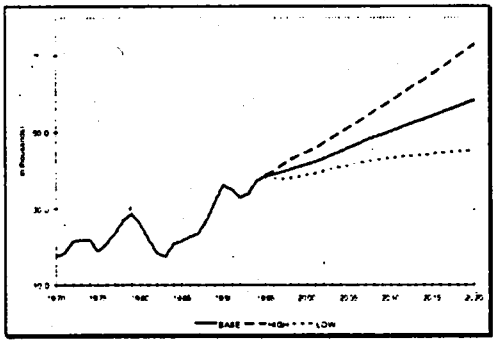
- Business services is expected to be the fastest growing component in the service sector.
- The health care industry will also be a strong contributor as the median age of population rises with the aging of the Baby Boomers.

CHART 11
Services (SIC: 70 to 89)



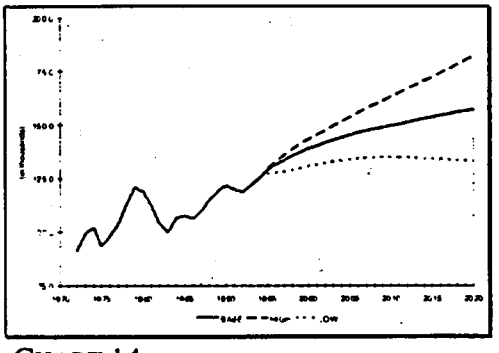
Although state and local government is expected to expand along with the increase in population, its share of the total number of jobs is expected to decline. Demand for public services will surely rise, but its impact on state and local employment is unknown. Uncertainty over state budgets and unfunded federal mandates is a huge source of concern.

CHART 12
State and Local Government (SIC: 90 to 99)



The construction industry is one of those sectors which is highly affected by business cycle fluctuations. The forecast does not attempt to guess when the next downturn will occur, instead, it estimates the likely trend around which future growth may develop. We anticipate moderate growth which is linked to the rate of household formation in the future.

CHART 13
Construction and Mining (SIC: 10 to 17)



The overall manufacturing sector is expected to experience slower employment growth. However, industry employment growth will be distributed unevenly.

- The high-tech industry will lead all manufacturers.
- Technology and productivity will continue to be a factor in future industry growth and jobs.

CHART 14
Manufacturing group: (SIC: 20 to 39)

Summary of Employment by Industry Wage and Salary Jobs

(Portland-Vancouver Metropolitan Area)

Industries	Average Annual Employment Growth Rates History (1970-94)	Average Annual Employment Growth Rates Forecast (1994-2015)	Percentage of Employment (1994)	Percentage of Employment (2015)
HIGH GROWTH				
Nonhealth Services	5.0%	3.2%	18.6%	25.5%
Health Services	3.7%	2.8%	6.8%	8.0%
Retail Trade	3.3%	1.9%	17.9%	17.4%
FIRE[26]	3.6%	1.8%	7.3%	7.5%
MODERATE GROWTH				
State and Local Government	2.3%	1.7%	11.2%	10.6%
Construction and Mining	2.5%	1.6%	5.1%	4.7%
Wholesale Trade	2.4%	1.5%	7.7%	6.7%
TPU[27]	1.5%	1.4%	5.8%	5.0%
LOW GROWTH				
Manufacturing, all	1.4%	0.9%	17.0%	12.8%
Federal Government[28]	0.8%	0.6%	2.5%	1.8%
WAGE AND SALARY, TOTAL	2.9%	2.0%	100.0%	100.0%
SELF EMPLOYED	4.1%	2.3%		

[26] Finance, Insurance and Real Estate (SIC 60-67)
[27] Transportation, Communications and Public Utilities (SIC 40-49)
[28] Includes Civilian and Military personnel

COMPARISONS WITH PRIOR REGIONAL FORECASTS

TABLE 7

Population Forecast

(Region: Clackamas, Multnomah, Washington and Clark county)

	Econometric[29] Model-1995	2040 Base Case Adjusted-1995	2040 Base Case 2	1989 Official Forecast
1995	1,597,100	1,597,103	1,526,500	1,489,844
2000	1,756,700	1,716,973	1,640,000	1,583,700
2005	1,903,600	1,839,880	1,756,200	1,683,400
2010	2,055,900	1,968,416	1,877,700	1,789,428
2015	2,210,800	2,099,821	2,001,730	N. A.
2020	2,363,600	N. A.	2,121,900	N. A.

TABLE 8

Employment Forecast

(Region: Clackamas, Multnomah, Washington and Clark county)

	Econometric Model-1995	2040 Base Case Adjusted-1995	2040 Base Case 2	1989 Official Forecast
1995	979,700	978,658	938,862	854,740
2000	1,104,000	1,085,675	1,040,955	918,700
2005	1,228,500	1,204,403	1,154,148	1,012,200
2010	1,356,100	1,336,129	1,279,651	1,133,402
2015	1,483,600	1,397,144	1,337,318	N. A.
2020	1,615,100	N. A.	1,364,016	N. A.

TABLE 9

Household Forecast

(Region: Clackamas, Multnomah, Washington and Clark county)

	Econometric Model-1995	2040 Base Case Adjusted-1995	2040 Base Case 2	1989 Official Forecast
1995	636,000	636,002	608,328	608,510
2000	705,900	695,807	665,112	668,200
2005	777,300	758,639	724,711	722,500
2010	852,000	823,958	786,608	762,280
2015	927,700	890,127	849,235	N. A.
2020	1,004,100	N. A.	909,157	N. A.

[29] *2015 Regional Forecast*, Medium Growth Scenario. Population, employment and household figures shown in the tables and charts in the text exclude Yamhill figures. However, regional data shown in the Appendix have not been recalibrated and so do include Yamhill county.

CHART 15

Population Age Distributions: 1995, 2010, 2015
Econometric Model v. 2040 Base Case 2

(Region: Clackamas, Multnomah, Washington and Clark county)

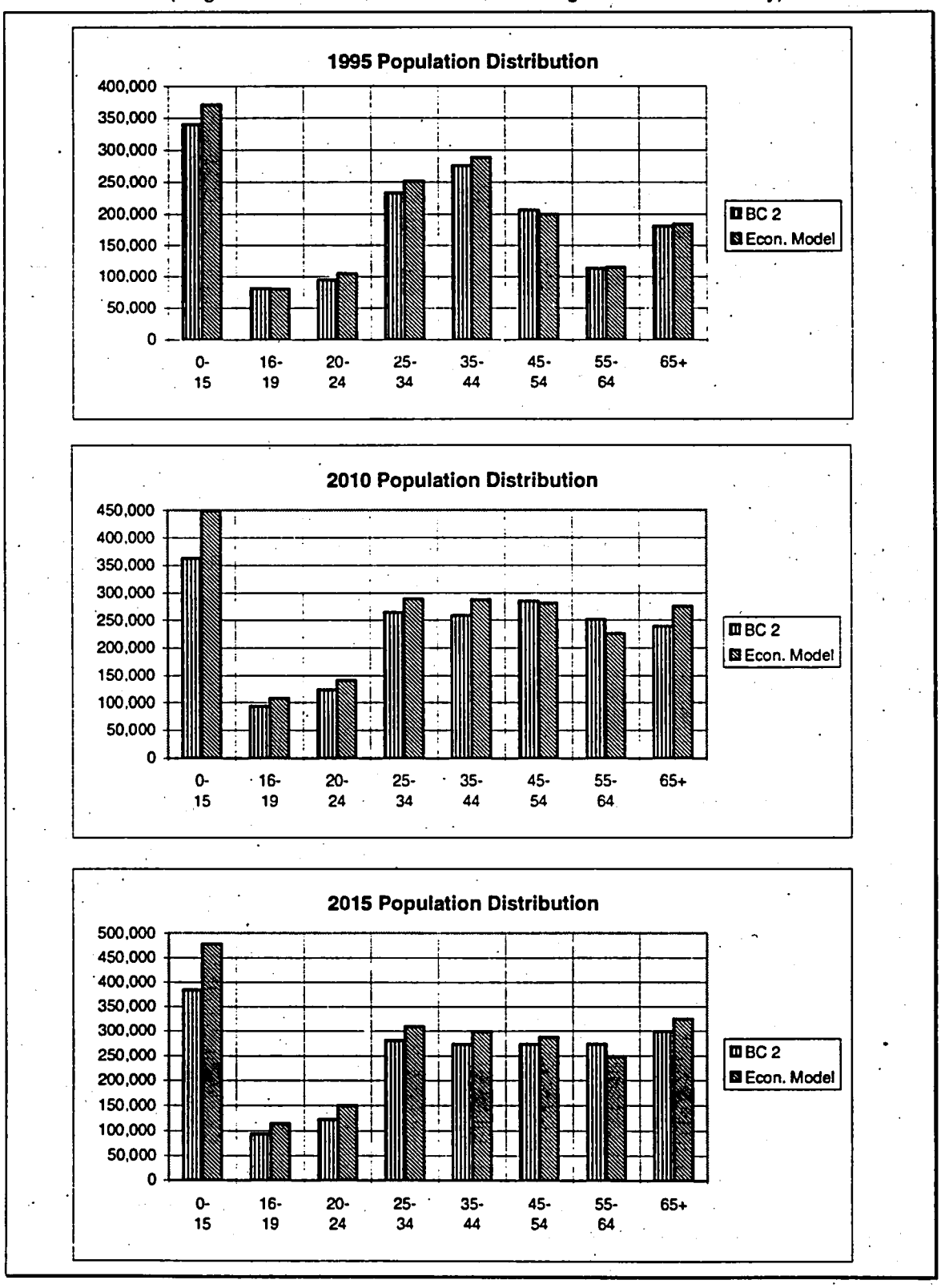


TABLE 10

Comparison Between
Econometric Model v. 2040 Base Case 2
(Region: Clackamas, Multnomah, Washington and Clark county)

	METRO Econometric Model[30]		
	1995	**2010**	**2015**
Population. total	1,597,100	2,055,900	2,210,800
16 and over	1,224,500	1,608,200	1,734,700
Labor Force	1,038,500	1,431,800	1,567,200
% L.F. participation rate	84.8%	89.0%	90.3%
Employment, total	979,700	1,356,100	1,486,600
Unemployed, total	58,800	75,700	80,600
% Unemployment rate	5.66%	5.29%	5.14%

	2040 Base Case 2[31]		
	1995	**2010**	**2015**
Population. total	1,526,500	1,877,700	2,001,700
16 and over	1,185,800	1,514,300	1,617,600
Labor Force	1,005,200	1,367,100	1,410,000
% L.F. participation rate	84.8%	90.3%	87.2%
Employment, total	939,900	1,279,700	1,321,200
Unemployed, total	66,300	87,500	88,800
% Unemployment rate	6.6%	6.4%	6.3%

[30] *2015 Regional Forecast*, Medium Growth Scenario
[31] Unpublished working papers: 2040 Base Case 2 population and employment forecast

ECONOMIC GROWTH COMPARISONS: STATE FORECAST AND BPA/NPPC OREGON FORECAST

TABLE 11

Comparison of Growth Trends in other Economic Forecasts[32]

(Region: Clackamas, Multnomah, Washington and Clark county)

Employment Projections
(5-year average annual growth rates)

	Econometric Model-1995	Oregon State Forecast	BPA/NPPC Oregon Forecast	WEFA U.S. Outlook
1995	2.9%	2.4%	2.4%	1.2%
2000	2.4%	2.2%	1.8%	1.6%
2005	2.1%	N. A.	1.7%	1.4%
2010	1.9%	N. A.	1.3%	1.2%
2015	1.7%	N. A.	1.1%	0.9%
2020	1.7%	N. A.	N. A.	0.9%

TABLE 12

Comparison of Growth Trends in other Forecasts

(Region: Clackamas, Multnomah, Washington and Clark county)

Population Projections
(5-year average annual growth rates)

	Econometric Model-1995	Oregon State Forecast	BPA/NPPC Oregon Forecast	WEFA U.S. Outlook
1995	2.4%	1.9%	2.1%	1.1%
2000	1.9%	1.7%	1.3%	0.9%
2005	1.6%	N. A.	1.1%	0.8%
2010	1.5%	N. A.	1.0%	0.8%
2015	1.4%	N. A.	0.9%	0.8%
2020	1.3%	N. A.	0.9%	0.8%

[32] Oregon State Economic and Revenue Forecast, Department of Administrative Services, State of Oregon, March 1995, Vol. XV, No. 1

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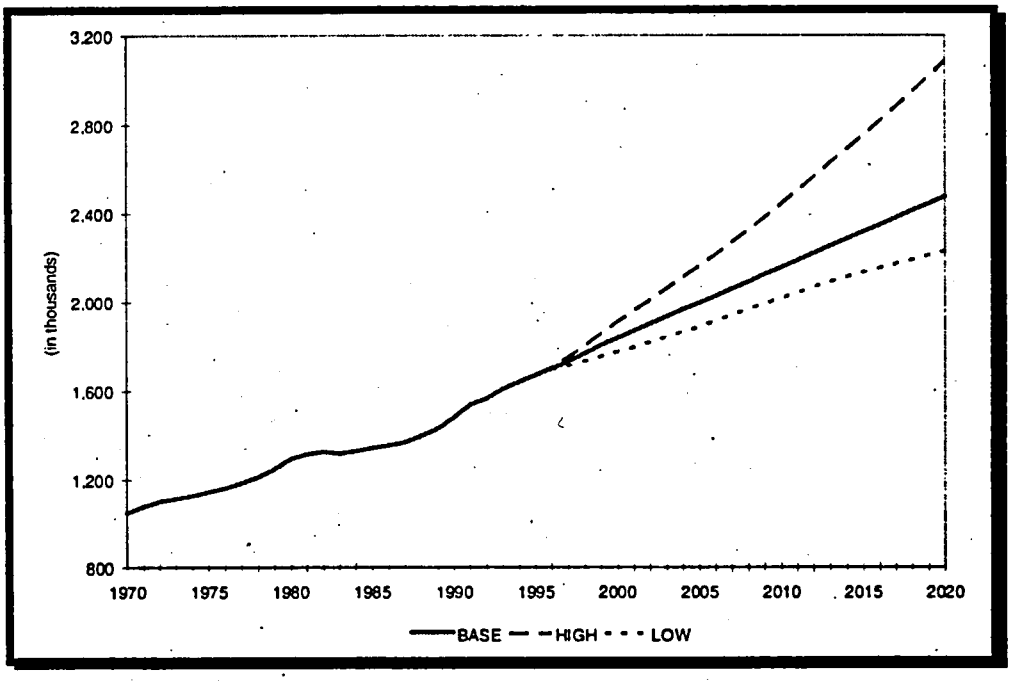
PART 3
THE REGIONAL HIGH GROWTH SCENARIO

MAJOR DIFFERENCES IN THE HIGH GROWTH SCENARIO

As the scenario name suggests, this alternative of the Medium Growth Regional Outlook calls for more rapid economic and population growth than the baseline regional forecast. What is primarily different about this scenario is its more optimistic national economic scenario, faster population growth assumptions, and rosier regional economic growth assumptions.

CHART 16
Regional
Population Scenarios



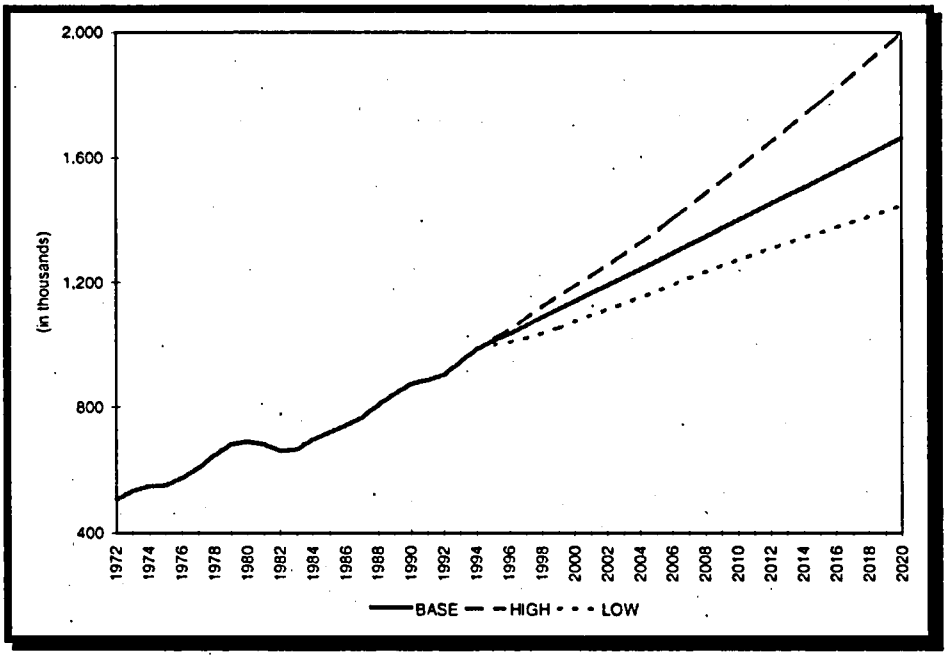
POPULATION ASSUMPTIONS IN THE HIGH GROWTH SCENARIO

- Female fertility rates are projected to rise to 2.49 by 2020, from 2.04 in 1990
- Male and female life expectancy steadily improve, same as the life expectancy assumptions contained in the U.S. High Growth scenario.

- Migration rates are well above historical averages – approaching 30,000 new migrants a year, or basically extending the same level of recent strong migration through the end of the forecast period

At these current migration rates, any probable changes in birth or survival rates are overwhelmed by the projected migration figures.

CHART 17
Regional
Employment Scenarios



ECONOMIC ASSUMPTIONS IN THE HIGH GROWTH SCENARIO

- A more optimistic population scenario fuels greater aggregate supplies and demand which increases the overall potential size of the regional economy.

- The long run productivity growth rate for all industries is 1.6 percent, significantly higher than in the medium growth scenario, 1.1 percent growth per year.

- U.S. final demand is much greater, averaging 2.7 percent growth per year as compared to 2.3 percent in the medium growth scenario, helping increase demand for employment.

- Significantly greater sales, especially in the high-tech sector, helps fuel stronger economic development in Portland's "silicon forest" and induces more indirect job growth than projected for the base case scenario.

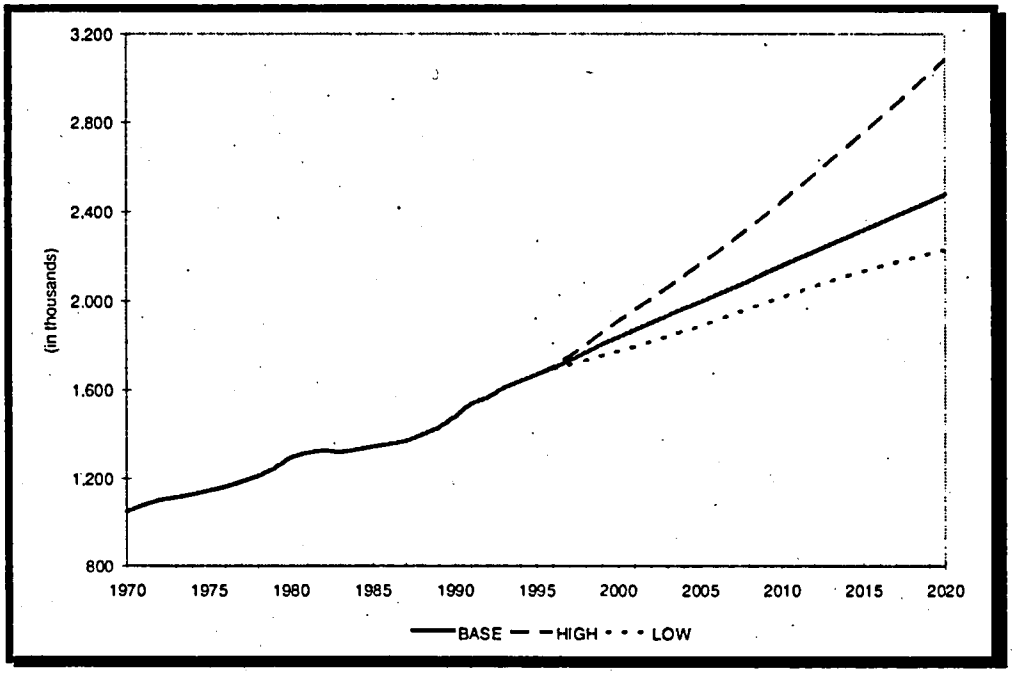
- More favorable international trade conditions for the U.S. bolsters regional industry(s) that have strong ties to global markets
- Assumptions to cutback employment in the wholesale trade sector because of new
- inventory management techniques fall short of expectations in the base case.
- Deregulation in the transportation and electric utilities do not lead to the widespread employment decreases as anticipated for the base case.
- Restructuring of the financial sector does not reduce the workforce as much as anticipated in the baseline scenario.

PART 4
THE REGIONAL LOW GROWTH SCENARIO

MAJOR DIFFERENCES IN THE LOW GROWTH SCENARIO

As the scenario name suggests, this alternative to the Medium Growth Regional Outlook calls for much slower economic expansion and less population growth than the baseline regional forecast. The primary difference in this scenario is it incorporates a pessimistic national economic scenario, slower assumptions about future population growth, and gloomier outlook of the region's industries and future market conditions.

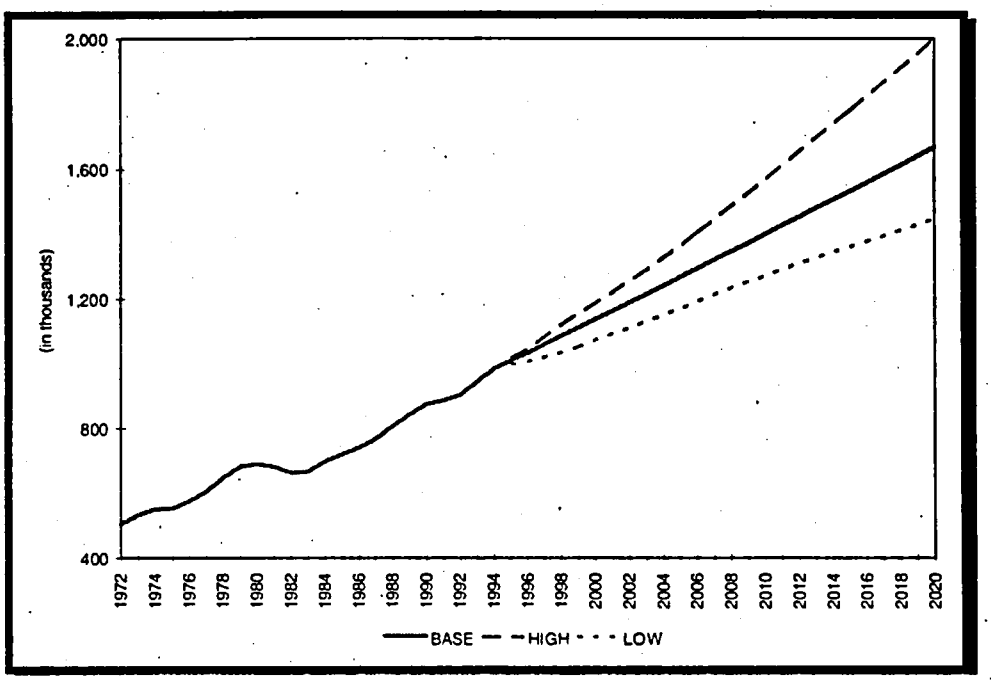
CHART 18
Regional
Population Scenarios



POPULATION ASSUMPTIONS IN THE LOW GROWTH SCENARIO

- Female fertility rates are projected to slide below 1.78 by 2020, from 2.04 in 1990.
- Male and female life expectancy deteriorate over the forecast period, same as the U.S. Low Growth life expectancy assumption
- Migration rates in the Low Growth Scenario are significantly lower through the forecast than the medium trend scenario. Migration in this regional scenario bounces around 8,000 migrants a year as compared to 15,000 in the medium trend scenario

CHART 19
Regional
Employment Scenarios



ECONOMIC ASSUMPTIONS IN THE LOW GROWTH SCENARIO

- A pessimistic population scenario lowers future projections for aggregate supply and demand.
- Virtually no productivity growth is projected.
- U.S. final demand is considerably lower, averaging 1.7 percent growth per year as compared to 2.3 percent in the medium trend scenario, decreasing demand for employment.
- Significantly slower sales, especially in the high-tech sector, restricts economic growth in Portland's "silicon forest".
- Less favorable international trade conditions for the U.S. weakens regional industry(s) that have strong ties to global markets

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APPENDIX

SECTION 3

Employment Forecast
(Medium Growth Scenario)
1995-2020

(Region in thousands, U.S. in millions)

Table 1

	1990	1991	1992	1993	1994	1995	1996	1997
Total Employment								
Portland-Vancouver	882.5	896.1	908.9	937.5	976.4	1,010.5	1,035.1	1,066.8
%change	4.1%	1.5%	1.4%	3.1%	4.2%	3.5%	2.4%	3.1%
Nonfarm Proprietors								
Portland-Vancouver	159.1	170.3	169.4	171.9	176.6	185.8	190.0	200.0
%change	6.2%	7.0%	-0.5%	1.5%	2.7%	5.2%	2.3%	5.3%
Wage and Salary Emp.								
Portland-Vancouver	715.2	717.5	731.5	757.7	792.4	817.6	838.3	860.3
%change	3.6%	0.3%	1.9%	3.6%	4.6%	3.2%	2.5%	2.6%
U.S. (millions)	109.4	108.3	108.6	110.5	113.4	116.3	118.3	120.4
%change	1.4%	-1.1%	0.3%	1.8%	2.6%	2.5%	1.7%	1.8%
Manufacturing Employment								
Portland-Vancouver	121.7	119.9	118.9	121.9	126.1	129.8	132.6	134.1
%change	2.4%	-1.6%	-0.8%	2.5%	3.5%	2.9%	2.2%	1.1%
U.S.	19.1	18.4	18.1	18.0	18.1	18.2	18.0	17.9
%change	-1.6%	-3.5%	-1.6%	-0.6%	0.3%	0.7%	-0.8%	-1.0%
Nondurable Goods, other								
Portland-Vancouver	5.8	5.9	6.4	6.8	7.6	7.7	7.6	7.5
%change	-1.4%	2.4%	8.8%	6.1%	11.6%	1.3%	-1.3%	-1.3%
U.S.	8.0	7.8	7.8	7.8	7.8	7.8	7.8	7.7
%change	-0.4%	-1.6%	-0.1%	0.1%	-0.5%	0.2%	-0.7%	-0.7%
Food Processing								
Portland-Vancouver	9.9	9.9	9.7	9.7	9.4	9.3	9.5	9.6
%change	6.1%	-0.6%	-1.3%	-0.3%	-2.7%	-1.1%	1.9%	0.8%
U.S.	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
%change	1.0%	0.4%	-0.3%	0.8%	-0.6%	0.0%	0.0%	0.4%
Textiles & Apparel								
Portland-Vancouver	4.8	4.7	4.6	4.8	5.0	5.3	5.5	5.5
%change	3.0%	-2.3%	-2.8%	3.7%	4.3%	6.1%	3.9%	1.2%
U.S.	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.5
%change	-3.8%	-3.0%	0.3%	-1.3%	-2.0%	-1.0%	-2.0%	-2.0%
Paper & Pulp								
Portland-Vancouver	7.2	6.8	6.9	7.0	7.1	6.7	6.7	6.6
%change	1.1%	-5.3%	1.3%	1.7%	1.9%	-5.4%	-1.3%	-1.1%
U.S.	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
%change	0.1%	-1.3%	0.4%	-0.1%	-0.8%	0.1%	-0.9%	-0.8%
Printing & Publishing								
Portland-Vancouver	8.8	9.6	9.6	9.9	10.0	10.1	10.2	10.4
%change	4.8%	9.5%	0.5%	3.1%	0.9%	0.8%	1.0%	2.0%
U.S.	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5
%change	0.9%	-2.2%	-1.9%	0.4%	1.0%	1.1%	0.2%	0.2%
Durable Goods, other								
Portland-Vancouver	7.5	7.2	7.4	7.9	7.9	7.4	7.5	7.7
%change	1.5%	-3.9%	2.1%	7.7%	0.0%	-6.2%	1.4%	2.3%
U.S.	11.1	10.6	10.3	10.2	10.3	10.4	10.3	10.2
%change	-2.5%	-4.8%	-2.8%	-1.0%	0.9%	1.2%	-0.9%	-1.3%

Employment Forecast
(Medium Growth Scenario)
1995-2020

(Region in thousands, U.S. in millions)

Table 1

	1998	1999	2000	2001	2002	2003	2004	2005
Total Employment								
Portland-Vancouver	1,094.7	1,121.7	1,147.3	1,172.3	1,197.3	1,222.3	1,248.4	1,274.9
%change	2.6%	2.5%	2.3%	2.2%	2.1%	2.1%	2.1%	2.1%
Nonfarm Proprietors								
Portland-Vancouver	208.5	215.5	221.4	227.3	233.5	240.0	246.6	253.2
%change	4.3%	3.4%	2.7%	2.7%	2.7%	2.8%	2.7%	2.7%
Wage and Salary Emp.								
Portland-Vancouver	879.9	899.9	919.5	938.5	957.4	975.9	995.4	1,015.3
%change	2.3%	2.3%	2.2%	2.1%	2.0%	1.9%	2.0%	2.0%
U.S. (millions)	122.3	124.2	126.0	127.8	129.5	131.1	132.9	134.8
%change	1.6%	1.6%	1.5%	1.4%	1.3%	1.3%	1.4%	1.4%
Manufacturing Employment								
Portland-Vancouver	135.5	137.4	138.9	140.3	141.7	143.0	144.1	145.3
%change	1.1%	1.4%	1.1%	1.0%	1.0%	0.9%	0.8%	0.8%
U.S.	17.8	17.7	17.7	17.6	17.5	17.5	17.4	17.4
%change	-0.4%	-0.3%	-0.4%	-0.5%	-0.4%	-0.3%	-0.3%	-0.3%
Nondurable Goods, other								
Portland-Vancouver	7.4	7.5	7.6	7.6	7.7	7.8	7.9	8.1
%change	-0.9%	0.9%	0.8%	0.9%	1.1%	1.3%	1.4%	1.8%
U.S.	7.7	7.7	7.6	7.6	7.6	7.6	7.6	7.6
%change	-0.3%	-0.3%	-0.3%	-0.4%	-0.3%	-0.2%	-0.1%	-0.1%
Food Processing								
Portland-Vancouver	9.6	9.7	9.7	9.8	9.8	9.8	9.9	9.9
%change	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%
U.S.	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
%change	0.5%	0.2%	0.0%	-0.1%	0.0%	0.1%	0.1%	0.2%
Textiles & Apparel								
Portland-Vancouver	5.5	5.4	5.3	5.1	5.0	4.8	4.7	4.6
%change	-0.8%	-2.0%	-2.4%	-3.0%	-2.8%	-2.6%	-2.2%	-2.4%
U.S.	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4
%change	-1.6%	-1.6%	-1.4%	-1.7%	-1.5%	-1.3%	-1.0%	-1.3%
Paper & Pulp								
Portland-Vancouver	6.5	6.5	6.4	6.3	6.3	6.2	6.2	6.1
%change	-0.7%	-1.0%	-1.0%	-1.2%	-1.0%	-0.9%	-0.8%	-0.9%
U.S.	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
%change	0.3%	0.5%	0.3%	0.2%	0.3%	0.4%	0.5%	0.6%
Printing & Publishing								
Portland-Vancouver	10.6	10.9	11.2	11.5	11.8	12.1	12.4	12.7
%change	1.9%	2.6%	2.8%	2.7%	2.6%	2.6%	2.4%	2.5%
U.S.	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
%change	0.3%	0.1%	0.3%	0.4%	0.4%	0.3%	0.3%	0.4%
Durable Goods, other								
Portland-Vancouver	7.9	8.0	8.2	8.2	8.3	8.4	8.4	8.5
%change	2.4%	1.8%	1.4%	1.0%	0.8%	0.7%	0.5%	0.5%
U.S.	10.1	10.1	10.0	10.0	9.9	9.9	9.9	9.8
%change	-0.5%	-0.3%	-0.5%	-0.5%	-0.5%	-0.4%	-0.4%	-0.5%

Employment Forecast
(Medium Growth Scenario)
1995-2020

Table 1

(Region in thousands, U.S. in millions)

	2006	2007	2008	2009	2010	2011	2012	2013
Total Employment								
Portland-Vancouver	1,301.6	1,327.7	1,354.2	1,380.1	1,406.4	1,432.8	1,459.4	1,485.8
%change	2.1%	2.0%	2.0%	1.9%	1.9%	1.9%	1.9%	1.8%
Nonfarm Proprietors								
Portland-Vancouver	259.9	266.8	274.0	281.1	288.4	295.9	303.6	311.4
%change	2.7%	2.7%	2.7%	2.6%	2.6%	2.6%	2.6%	2.6%
Wage and Salary Emp.								
Portland-Vancouver	1,035.2	1,054.4	1,073.7	1,092.5	1,111.5	1,130.4	1,149.4	1,168.0
%change	2.0%	1.9%	1.8%	1.8%	1.7%	1.7%	1.7%	1.6%
U.S. (millions)	136.6	138.4	140.0	141.7	143.3	144.8	146.3	147.7
%change	1.4%	1.3%	1.2%	1.2%	1.1%	1.1%	1.0%	1.0%
Manufacturing Employment								
Portland-Vancouver	146.3	147.3	148.1	149.0	149.7	150.5	151.3	152.1
%change	0.7%	0.6%	0.6%	0.5%	0.5%	0.5%	0.5%	0.6%
U.S.	17.3	17.2	17.2	17.1	17.1	17.0	17.0	16.9
%change	-0.4%	-0.3%	-0.3%	-0.3%	-0.3%	-0.4%	-0.3%	-0.3%
Nondurable Goods, other								
Portland-Vancouver	8.2	8.3	8.4	8.5	8.6	8.8	8.9	9.0
%change	1.7%	1.6%	1.4%	1.2%	1.3%	1.5%	1.5%	1.4%
U.S.	7.6	7.5	7.5	7.5	7.5	7.5	7.5	7.5
%change	0.0%	0.0%	-0.1%	-0.1%	0.0%	-0.1%	0.0%	0.0%
Food Processing								
Portland-Vancouver	10.0	10.0	10.0	10.1	10.1	10.2	10.2	10.2
%change	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
U.S.	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
%change	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%
Textiles & Apparel								
Portland-Vancouver	4.5	4.4	4.4	4.3	4.2	4.2	4.1	4.0
%change	-1.8%	-2.1%	-1.6%	-1.8%	-1.6%	-1.5%	-1.4%	-1.4%
U.S.	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.2
%change	-0.9%	-1.3%	-1.1%	-1.4%	-1.3%	-1.4%	-1.3%	-1.4%
Paper & Pulp								
Portland-Vancouver	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.7
%change	-0.9%	-0.8%	-0.8%	-0.7%	-0.7%	-0.8%	-0.8%	-0.7%
U.S.	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
%change	0.5%	0.6%	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%
Printing & Publishing								
Portland-Vancouver	13.0	13.3	13.5	13.8	14.0	14.2	14.4	14.7
%change	2.4%	2.2%	1.9%	1.8%	1.7%	1.6%	1.5%	1.5%
U.S.	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
%change	0.4%	0.4%	0.4%	0.5%	0.5%	0.5%	0.5%	0.6%
Durable Goods, other								
Portland-Vancouver	8.5	8.5	8.6	8.6	8.6	8.6	8.6	8.6
%change	0.4%	0.4%	0.3%	0.2%	0.2%	0.2%	0.2%	0.1%
U.S.	9.7	9.7	9.6	9.6	9.6	9.5	9.4	9.4
%change	-0.6%	-0.6%	-0.5%	-0.4%	-0.5%	-0.6%	-0.6%	-0.6%

Employment Forecast
(Medium Growth Scenario)
1995-2020

Table 1

(Region in thousands, U.S. in millions)

	2014	2015	2016	2017	2018	2019	2020
Total Employment							
Portland-Vancouver	1,511.8	1,537.9	1,563.9	1,590.5	1,617.7	1,645.4	1,673.7
%change	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%
Nonfarm Proprietors							
Portland-Vancouver	318.9	326.6	334.4	342.4	350.5	358.8	367.3
%change	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%
Wage and Salary Emp.							
Portland-Vancouver	1,186.4	1,204.8	1,223.0	1,241.7	1,260.7	1,280.2	1,299.9
%change	1.6%	1.6%	1.5%	1.5%	1.5%	1.5%	1.5%
U.S. (millions)	149.1	150.4	151.7	153.0	154.3	155.7	157.0
%change	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
Manufacturing Employment							
Portland-Vancouver	152.9	153.6	154.4	155.2	155.9	156.6	157.3
%change	0.5%	0.5%	0.5%	0.5%	0.4%	0.4%	0.5%
U.S.	16.9	16.8	16.8	16.7	16.7	16.6	16.6
%change	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%
Nondurable Goods, other							
Portland-Vancouver	9.2	9.3	9.5	9.6	9.7	9.9	10.0
%change	1.6%	1.6%	1.5%	1.5%	1.3%	1.3%	1.3%
U.S.	7.5	7.5	7.5	7.5	7.5	7.5	7.5
%change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Food Processing							
Portland-Vancouver	10.3	10.3	10.3	10.4	10.4	10.5	10.5
%change	0.4%	0.4%	0.4%	0.4%	0.3%	0.3%	0.3%
U.S.	1.7	1.7	1.7	1.7	1.7	1.7	1.7
%change	0.2%	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%
Textiles & Apparel							
Portland-Vancouver	4.0	3.9	3.9	3.8	3.8	3.8	3.7
%change	-1.3%	-1.3%	-1.3%	-1.2%	-1.1%	-1.1%	-1.1%
U.S.	1.2	1.2	1.2	1.2	1.2	1.1	1.1
%change	-1.4%	-1.5%	-1.6%	-1.5%	-1.6%	-1.6%	-1.6%
Paper & Pulp							
Portland-Vancouver	5.7	5.7	5.6	5.6	5.6	5.5	5.5
%change	-0.7%	-0.7%	-0.7%	-0.5%	-0.5%	-0.5%	-0.5%
U.S.	0.7	0.7	0.7	0.7	0.7	0.7	0.7
%change	0.4%	0.4%	0.3%	0.4%	0.4%	0.4%	0.4%
Printing & Publishing							
Portland-Vancouver	14.9	15.1	15.3	15.4	15.6	15.8	15.9
%change	1.5%	1.3%	1.3%	1.2%	1.1%	1.1%	1.1%
U.S.	1.7	1.7	1.7	1.7	1.7	1.7	1.7
%change	0.6%	0.6%	0.6%	0.7%	0.7%	0.7%	0.7%
Durable Goods, other							
Portland-Vancouver	8.7	8.7	8.7	8.7	8.7	8.7	8.7
%change	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
U.S.	9.3	9.3	9.2	9.2	9.1	9.1	9.0
%change	-0.5%	-0.6%	-0.6%	-0.5%	-0.5%	-0.5%	-0.5%

Employment Forecast
(Medium Growth Scenario)
1995-2020

Table 1

(Region in thousands, U.S. in millions)

	1990	1991	1992	1993	1994	1995	1996	1997
Lumber & Wood Products								
Portland-Vancouver	9.3	8.2	7.8	7.9	8.0	7.9	7.5	7.1
%change	-4.6%	-11.6%	-5.0%	0.8%	0.9%	-0.1%	-5.7%	-5.4%
U.S.	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
%change	-3.0%	-7.9%	0.7%	3.4%	4.0%	0.1%	-2.0%	-0.8%
Metals								
Portland-Vancouver	18.3	17.1	16.5	16.1	17.0	17.5	17.6	17.8
%change	-2.3%	-6.6%	-3.5%	-2.5%	5.6%	3.1%	0.6%	1.0%
U.S.	2.2	2.1	2.0	2.0	2.1	2.1	2.0	2.0
%change	-1.9%	-4.5%	-2.6%	-0.6%	2.0%	1.0%	-1.2%	-1.7%
Electronics, total								
Portland-Vancouver	40.1	40.5	39.9	41.8	43.9	47.6	50.5	52.1
%change	2.7%	1.1%	-1.4%	4.6%	5.0%	8.4%	6.2%	3.2%
U.S.	4.8	4.6	4.4	4.3	4.4	4.4	4.4	4.4
%change	-2.5%	-4.4%	-3.9%	-1.2%	0.4%	1.6%	0.0%	-0.8%
Nonelectrical Machinery								
Portland-Vancouver	14.1	15.1	14.7	16.1	16.9	18.0	18.9	19.3
%change	3.3%	7.4%	-2.9%	9.8%	4.5%	6.7%	5.0%	2.3%
U.S.	2.1	2.0	1.9	1.9	1.9	2.0	2.0	2.0
%change	-1.4%	-4.5%	-3.6%	-0.5%	1.3%	2.0%	0.7%	-0.3%
Electrical Machinery & Instruments								
Portland-Vancouver	26.0	25.4	25.2	25.6	27.0	29.6	31.6	32.8
%change	2.4%	-2.2%	-0.6%	1.6%	5.3%	9.5%	6.9%	3.8%
U.S.	2.7	2.6	2.5	2.4	2.4	2.4	2.4	2.4
%change	-3.3%	-4.3%	-4.2%	-1.8%	-0.3%	1.3%	-0.6%	-1.2%
Transportation Equipment								
Portland-Vancouver	10.2	10.0	10.1	10.0	10.2	10.2	10.0	9.7
%change	16.3%	-1.9%	1.0%	-0.5%	1.9%	-0.1%	-2.0%	-3.0%
U.S.	2.0	1.9	1.8	1.8	1.7	1.7	1.7	1.7
%change	-3.0%	-5.0%	-3.2%	-4.3%	-1.4%	1.0%	-2.1%	-2.6%
Nonmanufacturing								
Portland-Vancouver	593.5	597.7	612.6	635.9	666.3	687.8	705.7	726.3
%change	3.9%	0.7%	2.5%	3.8%	4.8%	3.2%	2.6%	2.9%
U.S.	90.3	89.9	90.5	92.5	95.3	98.1	100.2	102.5
%change	2.1%	-0.5%	0.7%	2.2%	3.0%	2.9%	2.2%	2.3%
Govt., Fed. Civilian								
Portland-Vancouver	18.1	17.7	18.3	18.1	17.7	17.6	17.6	17.7
%change	2.4%	-2.0%	3.5%	-1.3%	-2.4%	-0.4%	0.0%	0.6%
U.S.	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0
%change	5.9%	-4.1%	0.3%	-0.4%	-0.2%	-0.4%	-0.2%	-0.2%
Govt., Fed. Military								
Portland-Vancouver	8.2	8.3	8.0	7.8	7.5	7.1	6.8	6.5
%change	1.8%	1.0%	-3.8%	-1.7%	-4.6%	-5.0%	-4.2%	-4.4%
U.S.	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.8
%change	-2.3%	-3.2%	-0.4%	-5.1%	-4.8%	-1.7%	-1.3%	-1.1%
Govt., State & Local								
Portland-Vancouver	79.9	82.8	85.8	86.9	88.8	90.4	92.0	93.6
%change	3.9%	3.6%	3.6%	1.3%	2.1%	1.9%	1.8%	1.7%
U.S.	15.2	15.4	15.7	15.9	16.2	16.5	16.8	17.0
%change	2.9%	1.4%	1.5%	1.5%	1.7%	1.9%	1.7%	1.5%

Employment Forecast
(Medium Growth Scenario)
1995-2020

(Region in thousands, U.S. in millions)

Table 1

	1998	1999	2000	2001	2002	2003	2004	2005
Lumber & Wood Products								
Portland-Vancouver	7.1	7.2	7.3	7.3	7.3	7.3	7.2	7.1
%change	-0.1%	2.2%	1.0%	0.2%	-0.3%	-0.5%	-0.8%	-1.1%
U.S.	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
%change	0.0%	-0.5%	-1.3%	-1.0%	-0.8%	-0.5%	-0.4%	-0.7%
Metals								
Portland-Vancouver	18.0	18.2	18.4	18.6	18.8	19.0	19.1	19.3
%change	1.2%	1.2%	1.1%	1.1%	1.0%	0.9%	0.8%	0.8%
U.S.	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
%change	-0.2%	-0.4%	-0.5%	-0.3%	0.0%	0.1%	0.2%	0.1%
Electronics, total								
Portland-Vancouver	53.4	54.3	55.2	55.9	56.7	57.5	58.2	58.9
%change	2.4%	1.8%	1.5%	1.4%	1.4%	1.3%	1.2%	1.2%
U.S.	4.4	4.4	4.3	4.3	4.3	4.3	4.3	4.2
%change	-0.4%	-0.2%	-0.3%	-0.4%	-0.5%	-0.4%	-0.5%	-0.7%
Nonelectrical Machinery								
Portland-Vancouver	19.8	20.1	20.5	20.8	21.0	21.3	21.5	21.8
%change	2.3%	1.9%	1.8%	1.3%	1.2%	1.2%	1.1%	1.3%
U.S.	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9
%change	-0.6%	-0.5%	-0.3%	-0.4%	-0.5%	-0.4%	-0.8%	-1.1%
Electrical Machinery & Instrumer								
Portland-Vancouver	33.6	34.2	34.6	35.2	35.7	36.2	36.7	37.1
%change	2.4%	1.7%	1.4%	1.5%	1.5%	1.4%	1.2%	1.1%
U.S.	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3
%change	-0.2%	0.1%	-0.3%	-0.5%	-0.5%	-0.3%	-0.3%	-0.4%
Transportation Equipment								
Portland-Vancouver	9.5	9.6	9.7	9.9	10.0	10.0	10.1	10.1
%change	-2.5%	1.6%	1.4%	1.3%	1.1%	0.6%	0.3%	0.1%
U.S.	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5
%change	-1.5%	-0.8%	-1.1%	-1.1%	-1.1%	-1.1%	-1.2%	-1.1%
Nonmanufacturing								
Portland-Vancouver	744.4	762.5	780.6	798.2	815.7	832.9	851.3	870.0
%change	2.5%	2.4%	2.4%	2.3%	2.2%	2.1%	2.2%	2.2%
U.S.	104.5	106.5	108.4	110.2	111.9	113.7	115.5	117.4
%change	1.9%	1.9%	1.8%	1.7%	1.6%	1.6%	1.6%	1.7%
Govt., Fed. Civilian								
Portland-Vancouver	17.9	18.2	18.4	18.6	18.8	19.1	19.3	19.5
%change	1.1%	1.7%	1.4%	1.0%	1.1%	1.2%	1.2%	1.2%
U.S.	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2
%change	0.0%	0.5%	0.9%	1.0%	1.1%	1.2%	1.2%	1.2%
Govt., Fed. Military								
Portland-Vancouver	6.3	6.3	6.4	6.4	6.4	6.5	6.5	6.5
%change	-3.4%	0.8%	0.7%	0.6%	0.5%	0.3%	0.2%	0.1%
U.S.	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
%change	-0.2%	0.4%	0.7%	0.7%	0.5%	0.3%	0.2%	0.1%
Govt., State & Local								
Portland-Vancouver	95.4	97.4	99.5	101.5	103.5	105.4	107.2	109.0
%change	1.9%	2.1%	2.1%	2.0%	1.9%	1.8%	1.7%	1.7%
U.S.	17.3	17.5	17.7	17.9	18.1	18.2	18.4	18.6
%change	1.5%	1.3%	1.2%	1.1%	1.0%	1.0%	0.9%	0.9%

Employment Forecast
(Medium Growth Scenario)
1995-2020

Table 1

(Region In thousands, U.S. in millions)

	2006	2007	2008	2009	2010	2011	2012	2013
Lumber & Wood Products								
Portland-Vancouver	7.0	6.9	6.8	6.7	6.6	6.5	6.4	6.3
%change	-1.3%	-1.4%	-1.4%	-1.5%	-1.6%	-1.5%	-1.4%	-1.4%
U.S.	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6
%change	-1.0%	-0.7%	-1.0%	-0.7%	-0.7%	-1.0%	-1.1%	-0.9%
Metals								
Portland-Vancouver	19.4	19.5	19.6	19.7	19.8	19.9	20.0	20.0
%change	0.7%	0.6%	0.6%	0.5%	0.4%	0.4%	0.4%	0.3%
U.S.	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
%change	0.2%	-0.1%	0.1%	0.1%	0.2%	-0.1%	0.0%	-0.3%
Electronics, total								
Portland-Vancouver	59.6	60.2	60.8	61.5	62.1	62.7	63.3	64.0
%change	1.2%	1.1%	1.0%	1.0%	1.0%	1.0%	1.0%	1.1%
U.S.	4.2	4.2	4.1	4.1	4.1	4.0	4.0	4.0
%change	-1.0%	-0.8%	-0.7%	-0.6%	-0.7%	-0.8%	-0.8%	-0.7%
Nonelectrical Machinery								
Portland-Vancouver	22.1	22.3	22.6	22.8	23.1	23.3	23.6	23.9
%change	1.4%	1.1%	1.0%	1.1%	1.1%	1.0%	1.1%	1.3%
U.S.	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8
%change	-1.3%	-1.0%	-0.8%	-0.4%	-0.6%	-0.7%	-0.6%	-0.5%
Electrical Machinery & Instrumer								
Portland-Vancouver	37.5	37.9	38.3	38.7	39.0	39.4	39.8	40.2
%change	1.0%	1.1%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
U.S.	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2
%change	-0.7%	-0.5%	-0.6%	-0.7%	-0.8%	-0.8%	-0.9%	-0.9%
Transportation Equipment								
Portland-Vancouver	10.1	10.0	9.9	9.9	9.8	9.6	9.5	9.4
%change	-0.2%	-0.5%	-0.7%	-0.9%	-1.1%	-1.2%	-1.3%	-1.3%
U.S.	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4
%change	-1.1%	-0.9%	-1.1%	-1.1%	-1.1%	-1.1%	-1.0%	-0.9%
Nonmanufacturing								
Portland-Vancouver	888.9	907.1	925.5	943.5	961.7	979.9	998.1	1,015.8
%change	2.2%	2.1%	2.0%	1.9%	1.9%	1.9%	1.9%	1.8%
U.S.	119.3	121.1	122.8	124.6	126.2	127.8	129.3	130.8
%change	1.6%	1.5%	1.4%	1.4%	1.3%	1.3%	1.2%	1.1%
Govt., Fed. Civilian								
Portland-Vancouver	19.8	20.0	20.2	20.4	20.7	20.9	21.1	21.4
%change	1.2%	1.2%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
U.S.	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.4
%change	1.2%	1.2%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
Govt., Fed. Military								
Portland-Vancouver	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
%change	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
U.S.	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
%change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Govt., State & Local								
Portland-Vancouver	110.8	112.6	114.5	116.3	118.1	119.9	121.8	123.7
%change	1.7%	1.6%	1.7%	1.6%	1.6%	1.6%	1.6%	1.5%
U.S.	18.7	18.9	19.0	19.2	19.3	19.5	19.6	19.7
%change	0.9%	0.8%	0.8%	0.8%	0.7%	0.7%	0.6%	0.6%

Employment Forecast
(Medium Growth Scenario)
1995-2020

Table 1

(Region in thousands, U.S. in millions)

	2014	2015	2016	2017	2018	2019	2020
Lumber & Wood Products							
Portland-Vancouver	6.3	6.2	6.1	6.0	5.9	5.8	5.7
%change	-1.5%	-1.5%	-1.4%	-1.4%	-1.5%	-1.5%	-1.5%
U.S.	0.6	0.6	0.6	0.6	0.6	0.6	0.6
%change	-1.1%	-1.1%	-1.0%	-0.9%	-0.9%	-0.9%	-0.9%
Metals							
Portland-Vancouver	20.1	20.1	20.2	20.3	20.3	20.3	20.4
%change	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%
U.S.	2.0	2.0	2.0	2.0	2.0	2.0	2.0
%change	0.0%	0.0%	-0.1%	0.0%	-0.1%	-0.1%	-0.1%
Electronics, total							
Portland-Vancouver	64.6	65.2	65.8	66.5	67.1	67.6	68.2
%change	0.9%	0.9%	1.0%	1.0%	0.8%	0.8%	0.8%
U.S.	4.0	3.9	3.9	3.9	3.8	3.8	3.8
%change	-0.8%	-0.8%	-0.8%	-0.6%	-0.7%	-0.7%	-0.7%
Nonelectrical Machinery							
Portland-Vancouver	24.1	24.3	24.5	24.7	24.8	25.0	25.1
%change	0.9%	0.7%	0.9%	1.0%	0.5%	0.5%	0.5%
U.S.	1.8	1.8	1.8	1.8	1.8	1.7	1.7
%change	-0.6%	-0.6%	-0.4%	-0.3%	-0.3%	-0.3%	-0.3%
Electrical Machinery & Instrumer							
Portland-Vancouver	40.6	40.9	41.4	41.8	42.2	42.7	43.1
%change	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
U.S.	2.2	2.2	2.1	2.1	2.1	2.1	2.1
%change	-0.9%	-1.0%	-1.1%	-1.0%	-0.9%	-0.9%	-0.9%
Transportation Equipment							
Portland-Vancouver	9.3	9.2	9.0	8.9	8.8	8.7	8.7
%change	-1.2%	-1.2%	-1.3%	-1.3%	-1.0%	-1.0%	-1.0%
U.S.	1.4	1.4	1.4	1.4	1.3	1.3	1.3
%change	-0.7%	-0.7%	-0.8%	-1.0%	-1.0%	-1.0%	-1.0%
Nonmanufacturing							
Portland-Vancouver	1,033.5	1,051.2	1,068.5	1,086.4	1,104.8	1,123.6	1,142.6
%change	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%
U.S.	132.2	133.6	134.9	136.3	137.7	139.1	140.5
%change	1.1%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Govt., Fed. Civilian							
Portland-Vancouver	21.6	21.8	22.1	22.3	22.6	22.8	23.0
%change	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
U.S.	2.4	2.4	2.5	2.5	2.5	2.5	2.6
%change	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
Govt., Fed. Military							
Portland-Vancouver	6.5	6.5	6.5	6.5	6.5	6.5	6.5
%change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
U.S.	0.8	0.8	0.8	0.8	0.8	0.8	0.8
%change	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Govt., State & Local							
Portland-Vancouver	125.6	127.3	128.9	130.7	132.6	134.6	136.6
%change	1.5%	1.4%	1.3%	1.4%	1.5%	1.5%	1.5%
U.S.	19.8	20.0	20.1	20.2	20.3	20.4	20.5
%change	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%

Employment Forecast
(Medium Growth Scenario)
1995-2020

(Region in thousands, U.S. in millions)

Table 1

	1990	1991	1992	1993	1994	1995	1996	1997
Constr. & Mining								
Portland-Vancouver	36.3	35.3	33.7	35.2	40.4	42.5	41.0	41.8
%change	14.1%	-2.6%	-4.6%	4.4%	14.6%	5.3%	-3.5%	2.0%
U.S.	5.8	5.3	5.1	5.2	5.5	5.6	5.6	5.8
%change	-0.5%	-8.4%	-4.0%	2.4%	4.9%	2.2%	0.3%	1.9%
Private Service Producers								
Portland-Vancouver	459.2	461.9	474.7	495.7	519.5	537.3	555.1	573.2
%change	3.2%	0.6%	2.8%	4.4%	4.8%	3.4%	3.3%	3.3%
U.S.	66.2	66.1	66.7	68.4	70.8	73.1	75.0	76.9
%change	2.1%	-0.2%	0.9%	2.6%	3.4%	3.3%	2.6%	2.6%
Fin., Insurance, & Real Estate								
Portland-Vancouver	52.1	53.8	55.6	59.0	61.7	62.7	63.8	64.9
%change	3.5%	3.3%	3.3%	6.1%	4.6%	1.6%	1.8%	1.7%
U.S.	6.7	6.6	6.6	6.7	6.8	6.8	6.9	6.9
%change	0.6%	-0.9%	-0.7%	1.7%	1.1%	0.4%	0.7%	0.1%
Transport., Comm., & Utilities								
Portland-Vancouver	41.6	42.1	42.5	43.3	45.0	46.0	46.7	47.3
%change	3.6%	1.1%	1.0%	2.0%	3.9%	2.2%	1.5%	1.3%
U.S.	5.8	5.8	5.7	5.8	5.8	5.9	6.0	6.1
%change	3.0%	-0.5%	-0.7%	1.2%	0.9%	1.5%	1.2%	1.5%
Services, total								
Portland-Vancouver	182.2	182.1	190.3	201.9	212.1	222.5	234.2	246.0
%change	5.6%	-0.1%	4.5%	6.1%	5.1%	4.9%	5.3%	5.0%
U.S.	27.9	28.3	29.0	30.3	31.8	33.2	34.5	35.7
%change	3.8%	1.4%	2.5%	4.2%	5.0%	4.6%	3.7%	3.7%
Health								
Portland-Vancouver	49.0	49.7	50.6	52.6	54.2	55.8	57.6	59.7
%change	4.4%	1.6%	1.8%	4.0%	3.0%	2.9%	3.2%	3.6%
U.S.	7.8	8.2	8.5	8.8	9.0	9.3	9.6	10.0
%change	4.7%	4.7%	3.8%	3.3%	3.0%	2.8%	3.6%	4.3%
Nonhealth								
Portland-Vancouver	133.2	132.4	139.7	149.3	157.9	166.7	176.6	186.3
%change	6.0%	-0.6%	5.6%	6.8%	5.8%	5.5%	6.0%	5.5%
U.S.	20.1	20.2	20.6	21.5	22.8	24.0	24.8	25.7
%change	3.5%	0.2%	2.0%	4.6%	5.8%	5.3%	3.7%	3.4%
Trade, total								
Portland-Vancouver	183.4	183.9	186.4	191.4	200.7	206.1	210.4	215.0
%change	2.7%	0.3%	1.3%	2.7%	4.8%	2.7%	2.1%	2.2%
U.S.	25.8	25.4	25.4	25.7	26.3	27.1	27.7	28.2
%change	0.4%	-1.6%	-0.1%	1.3%	2.6%	2.9%	2.0%	2.0%
Retail Trade								
Portland-Vancouver	128.2	128.6	130.9	134.8	141.2	145.1	148.3	151.9
%change	5.0%	0.3%	1.8%	3.0%	4.7%	2.8%	2.2%	2.4%
U.S.	19.6	19.3	19.4	19.7	20.3	21.0	21.4	22.0
%change	0.7%	-1.6%	0.4%	1.9%	2.9%	3.3%	2.3%	2.4%
Wholesale Trade								
Portland-Vancouver	55.2	55.4	55.5	56.6	59.5	61.0	62.1	63.1
%change	2.6%	0.4%	0.1%	2.1%	5.0%	2.6%	1.8%	1.6%
U.S.	6.2	6.1	6.0	6.0	6.1	6.2	6.2	6.3
%change	-0.2%	-1.5%	-1.4%	-0.6%	1.6%	1.7%	1.1%	0.6%

Employment Forecast
(Medium Growth Scenario)
1995-2020

Table 1

(Region in thousands, U.S. in millions)

	1998	1999	2000	2001	2002	2003	2004	2005
Constr. & Mining								
Portland-Vancouver	42.6	43.5	44.3	44.9	45.7	46.5	47.4	48.3
%change	1.9%	2.1%	1.8%	1.4%	1.8%	1.8%	2.0%	1.9%
U.S.	5.9	6.0	6.1	6.2	6.3	6.4	6.5	6.6
%change	2.7%	1.7%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
Private Service Producers								
Portland-Vancouver	588.5	603.4	618.3	633.2	647.7	662.0	677.4	693.2
%change	2.7%	2.5%	2.5%	2.4%	2.3%	2.2%	2.3%	2.3%
U.S.	78.5	80.1	81.7	83.2	84.7	86.1	87.6	89.2
%change	2.1%	2.1%	2.0%	1.9%	1.7%	1.7%	1.8%	1.8%
Fin., Insurance, & Real Estate								
Portland-Vancouver	66.2	67.5	69.1	70.5	71.8	73.2	74.6	76.1
%change	2.0%	2.0%	2.3%	2.0%	1.9%	1.8%	2.0%	2.0%
U.S.	6.9	6.9	7.0	7.1	7.2	7.3	7.4	7.5
%change	0.0%	1.0%	1.0%	1.2%	1.4%	1.5%	1.7%	1.7%
Transport., Comm., & Utilities								
Portland-Vancouver	47.9	48.5	49.1	49.7	50.4	51.1	51.9	52.6
%change	1.3%	1.3%	1.2%	1.2%	1.3%	1.5%	1.5%	1.4%
U.S.	6.2	6.3	6.4	6.5	6.5	6.6	6.6	6.6
%change	1.8%	1.5%	1.4%	1.2%	1.0%	0.8%	0.7%	0.5%
Services, total								
Portland-Vancouver	255.3	264.3	273.2	282.0	290.6	299.1	308.1	317.5
%change	3.8%	3.5%	3.3%	3.2%	3.0%	2.9%	3.0%	3.1%
U.S.	36.8	37.8	38.9	39.9	40.9	41.8	42.9	44.0
%change	2.9%	2.8%	2.8%	2.7%	2.5%	2.3%	2.5%	2.7%
Health								
Portland-Vancouver	61.3	62.7	64.3	66.0	67.8	69.7	71.8	73.9
%change	2.8%	2.3%	2.4%	2.6%	2.8%	2.9%	3.0%	3.0%
U.S.	10.4	10.8	11.2	11.6	12.0	12.4	12.8	13.3
%change	3.8%	3.7%	3.7%	3.6%	3.4%	3.3%	3.4%	3.6%
Nonhealth								
Portland-Vancouver	194.0	201.6	208.9	216.0	222.8	229.3	236.4	243.6
%change	4.1%	3.9%	3.6%	3.4%	3.1%	2.9%	3.1%	3.1%
U.S.	26.3	27.0	27.7	28.3	28.9	29.4	30.1	30.8
%change	2.5%	2.5%	2.4%	2.3%	2.1%	2.0%	2.2%	2.2%
Trade, total								
Portland-Vancouver	219.0	223.0	227.0	231.0	234.9	238.6	242.7	247.0
%change	1.9%	1.8%	1.8%	1.8%	1.7%	1.6%	1.7%	1.7%
U.S.	28.7	29.1	29.5	29.8	30.1	30.4	30.7	31.0
%change	1.7%	1.4%	1.3%	1.1%	1.0%	1.0%	1.0%	1.0%
Retail Trade								
Portland-Vancouver	155.0	158.0	161.0	164.1	167.0	169.9	173.0	176.2
%change	2.0%	1.9%	1.9%	1.9%	1.8%	1.7%	1.8%	1.8%
U.S.	22.4	22.8	23.1	23.5	23.8	24.1	24.4	24.7
%change	2.1%	1.7%	1.6%	1.4%	1.3%	1.3%	1.3%	1.3%
Wholesale Trade								
Portland-Vancouver	64.1	65.0	66.0	66.9	67.9	68.8	69.7	70.8
%change	1.5%	1.5%	1.5%	1.4%	1.4%	1.3%	1.4%	1.5%
U.S.	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
%change	0.4%	0.3%	0.2%	0.0%	-0.1%	-0.1%	-0.1%	-0.1%

Employment Forecast
(Medium Growth Scenario)
1995-2020

Table 1

(Region in thousands, U.S. in millions)

	2006	2007	2008	2009	2010	2011	2012	2013
Constr. & Mining								
Portland-Vancouver	49.2	50.1	51.0	51.8	52.6	53.4	54.3	55.0
%change	1.9%	1.8%	1.7%	1.5%	1.6%	1.5%	1.6%	1.4%
U.S.	6.7	6.8	6.9	7.1	7.2	7.3	7.4	7.5
%change	1.6%	1.6%	1.5%	2.9%	1.4%	1.3%	1.3%	1.3%
Private Service Producers								
Portland-Vancouver	709.1	724.4	739.9	755.0	770.3	785.6	800.8	815.8
%change	2.3%	2.2%	2.1%	2.0%	2.0%	2.0%	1.9%	1.9%
U.S.	90.8	92.4	93.8	95.1	96.5	97.8	99.1	100.3
%change	1.8%	1.7%	1.5%	1.4%	1.4%	1.4%	1.3%	1.2%
Fin., Insurance, & Real Estate								
Portland-Vancouver	77.5	78.8	80.2	81.5	82.9	84.4	85.8	87.2
%change	1.8%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.6%
U.S.	7.7	7.8	7.9	8.0	8.1	8.3	8.4	8.5
%change	1.6%	1.6%	1.5%	1.5%	1.4%	1.4%	1.4%	1.4%
Transport., Comm., & Utilities								
Portland-Vancouver	53.4	54.1	54.9	55.7	56.5	57.3	58.2	59.0
%change	1.5%	1.4%	1.5%	1.4%	1.4%	1.5%	1.5%	1.5%
U.S.	6.7	6.7	6.7	6.8	6.8	6.8	6.8	6.9
%change	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Services, total								
Portland-Vancouver	326.9	336.0	345.0	353.7	362.4	371.1	379.5	387.8
%change	2.9%	2.8%	2.7%	2.5%	2.5%	2.4%	2.3%	2.2%
U.S.	45.2	46.2	47.2	48.2	49.1	50.0	50.9	51.7
%change	2.6%	2.4%	2.2%	2.0%	1.9%	1.8%	1.7%	1.6%
Health								
Portland-Vancouver	76.1	78.3	80.6	82.8	85.1	87.4	89.7	91.9
%change	2.9%	2.9%	2.9%	2.8%	2.8%	2.7%	2.6%	2.5%
U.S.	13.8	14.2	14.7	15.1	15.5	16.0	16.4	16.8
%change	3.6%	3.4%	3.2%	3.0%	2.8%	2.8%	2.7%	2.6%
Nonhealth								
Portland-Vancouver	250.8	257.7	264.4	270.9	277.3	283.7	289.9	295.8
%change	2.9%	2.8%	2.6%	2.4%	2.4%	2.3%	2.2%	2.1%
U.S.	31.4	32.0	32.6	33.1	33.6	34.1	34.5	34.9
%change	2.2%	1.9%	1.7%	1.6%	1.5%	1.4%	1.3%	1.1%
Trade, total								
Portland-Vancouver	251.4	255.4	259.8	264.1	268.5	272.9	277.3	281.7
%change	1.8%	1.6%	1.7%	1.6%	1.7%	1.6%	1.6%	1.6%
U.S.	31.3	31.6	31.9	32.2	32.4	32.7	33.0	33.3
%change	1.0%	0.9%	0.9%	0.8%	0.9%	0.9%	0.9%	0.9%
Retail Trade								
Portland-Vancouver	179.6	182.7	186.1	189.3	192.5	195.7	199.0	202.4
%change	1.9%	1.8%	1.8%	1.7%	1.7%	1.7%	1.7%	1.7%
U.S.	25.0	25.3	25.6	25.9	26.2	26.5	26.8	27.1
%change	1.2%	1.2%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
Wholesale Trade								
Portland-Vancouver	71.8	72.7	73.8	74.8	76.0	77.2	78.3	79.4
%change	1.4%	1.3%	1.5%	1.4%	1.6%	1.5%	1.5%	1.3%
U.S.	6.3	6.3	6.3	6.3	6.2	6.2	6.2	6.2
%change	-0.1%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.3%

Employment Forecast
(Medium Growth Scenario)
1995-2020

(Region in thousands, U.S. in millions)

Table 1

	2014	2015	2016	2017	2018	2019	2020
Constr. & Mining							
Portland-Vancouver	55.7	56.5	57.4	58.2	59.0	59.9	60.7
%change	1.3%	1.5%	1.5%	1.4%	1.4%	1.4%	1.4%
U.S.	7.6	7.7	7.8	7.9	8.0	8.2	8.3
%change	1.3%	1.3%	1.4%	1.4%	1.4%	1.4%	1.4%
Private Service Producers							
Portland-Vancouver	830.6	845.5	860.2	875.2	890.7	906.3	922.3
%change	1.8%	1.8%	1.7%	1.8%	1.8%	1.8%	1.8%
U.S.	101.5	102.7	103.8	104.9	106.0	107.1	108.3
%change	1.2%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
Fin., Insurance, & Real Estate							
Portland-Vancouver	88.6	90.0	91.4	92.8	94.1	95.5	96.9
%change	1.5%	1.6%	1.6%	1.5%	1.5%	1.5%	1.5%
U.S.	8.6	8.7	8.9	9.0	9.1	9.2	9.4
%change	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%
Transport., Comm., & Utilities							
Portland-Vancouver	59.9	60.7	61.5	62.3	63.1	63.9	64.8
%change	1.4%	1.4%	1.3%	1.3%	1.3%	1.3%	1.3%
U.S.	6.9	6.9	7.0	7.0	7.0	7.0	7.1
%change	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Services, total							
Portland-Vancouver	396.0	404.1	412.2	420.7	429.3	438.1	447.1
%change	2.1%	2.1%	2.0%	2.0%	2.1%	2.1%	2.1%
U.S.	52.4	53.1	53.8	54.5	55.2	55.9	56.6
%change	1.4%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
Health							
Portland-Vancouver	94.2	96.5	98.8	101.2	103.6	106.1	108.6
%change	2.5%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%
U.S.	17.2	17.6	18.0	18.4	18.8	19.2	19.7
%change	2.5%	2.4%	2.2%	2.2%	2.2%	2.2%	2.2%
Nonhealth							
Portland-Vancouver	301.8	307.6	313.4	319.5	325.7	332.0	338.5
%change	2.0%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%
U.S.	35.2	35.5	35.8	36.0	36.3	36.6	36.9
%change	0.9%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
Trade, total							
Portland-Vancouver	286.2	290.7	295.1	299.5	304.1	308.8	313.6
%change	1.6%	1.6%	1.5%	1.5%	1.5%	1.5%	1.5%
U.S.	33.6	33.9	34.2	34.4	34.7	35.0	35.3
%change	0.9%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
Retail Trade							
Portland-Vancouver	205.9	209.5	213.1	216.7	220.5	224.4	228.3
%change	1.7%	1.8%	1.7%	1.7%	1.7%	1.7%	1.7%
U.S.	27.4	27.7	28.0	28.3	28.6	28.9	29.2
%change	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
Wholesale Trade							
Portland-Vancouver	80.3	81.2	82.0	82.8	83.6	84.5	85.3
%change	1.2%	1.0%	1.0%	0.9%	1.0%	1.0%	1.0%
U.S.	6.2	6.2	6.1	6.1	6.1	6.1	6.0
%change	-0.3%	-0.3%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%

Portland Area Employment Forecast

Table 2

Medium, High and Low Growth Scenarios

(Clackamas, Multnomah, Washington, Yamhill and Clark counties)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Total Employment (3)										
Medium	1,010.5	1,035.1	1,066.8	1,094.7	1,121.7	1,147.3	1,172.3	1,197.3	1,222.3	1,248.4
High	1,032.8	1,061.4	1,092.5	1,126.8	1,160.3	1,192.8	1,225.5	1,260.5	1,295.3	1,331.6
Low	980.4	1,001.8	1,024.5	1,040.0	1,057.6	1,079.4	1,098.0	1,117.2	1,136.0	1,156.2
Nonfarm Proprietors (4)										
Medium	185.8	190.0	200.0	208.5	215.5	221.4	227.3	233.5	240.0	246.6
High	202.7	203.2	207.8	214.9	223.2	231.5	239.9	248.9	258.4	268.1
Low	180.0	190.0	201.5	204.1	207.4	211.6	215.9	221.0	226.2	231.6
Nonfarm Wage & Salary										
Medium	817.6	838.3	860.3	879.9	899.9	919.5	938.5	957.4	975.9	995.4
High	823.0	851.3	878.1	905.6	930.7	954.9	979.2	1,005.1	1,030.4	1,057.0
Low	793.5	805.2	816.6	829.6	843.9	861.4	875.6	889.8	903.3	918.1
Manufacturing Employ.										
Medium	129.8	132.6	134.1	135.5	137.4	138.9	140.3	141.7	143.0	144.1
High	130.3	133.8	136.3	138.5	141.2	143.4	145.3	147.5	149.6	151.6
Low	127.2	127.9	128.2	128.8	129.9	130.7	131.4	132.2	132.9	133.5
Durable Mfg.										
Medium	90.6	93.1	94.4	95.8	97.4	98.8	100.0	101.1	102.2	103.0
High	91.4	94.2	96.2	97.9	100.1	101.9	103.4	105.2	106.7	108.1
Low	89.1	89.6	90.1	90.9	92.0	92.9	93.7	94.6	95.3	95.8
Nondurable Mfg.										
Medium	39.2	39.4	39.6	39.7	39.9	40.1	40.3	40.5	40.8	41.1
High	38.9	39.5	40.1	40.5	41.1	41.5	41.9	42.3	42.9	43.5
Low	38.1	38.3	38.1	37.9	37.9	37.8	37.7	37.6	37.6	37.7
Food Processing										
Medium	9.33	9.51	9.58	9.63	9.68	9.72	9.77	9.81	9.84	9.88
High	9.40	9.57	9.68	9.76	9.84	9.92	9.99	10.06	10.13	10.19
Low	9.23	9.34	9.38	9.40	9.42	9.45	9.48	9.51	9.53	9.55
Textiles and Apparel										
Medium	5.27	5.48	5.55	5.50	5.39	5.26	5.11	4.96	4.83	4.73
High	5.31	5.56	5.67	5.66	5.59	5.51	5.39	5.28	5.17	5.09
Low	5.16	5.25	5.21	5.07	4.94	4.82	4.65	4.50	4.35	4.24
Lumber & Wood										
Medium	7.95	7.50	7.09	7.08	7.24	7.31	7.33	7.31	7.27	7.21
High	8.08	7.82	7.57	7.73	7.98	8.05	8.06	8.05	8.04	8.01
Low	7.82	7.18	6.61	6.47	6.54	6.55	6.55	6.52	6.48	6.42
Paper and Pulp										
Medium	6.75	6.66	6.58	6.54	6.47	6.40	6.33	6.27	6.21	6.16
High	6.78	6.71	6.66	6.61	6.55	6.50	6.44	6.39	6.34	6.31
Low	6.66	6.50	6.34	6.20	6.13	6.06	5.99	5.93	5.87	5.83

Portland Area Employment Forecast

Table 2

Medium, High and Low Growth Scenarios

(Clackamas, Multnomah, Washington, Yamhill and Clark counties)

	2005	2006	2007	2008	2009	2010	2015	2020	AARG (1994-2020)
Total Employment (3)									
Medium	1,274.9	1;301.6	1,327.7	1,354.2	1,380.1	1,406.4	1,537.9	1,673.7	2.09%
High	1,369.7	1,409.6	1,449.6	1,490.1	1,530.5	1,572.2	1,784.1	2,005.2	2.81%
Low	1,176.1	1,197.6	1,218.7	1,239.3	1,258.5	1,277.4	1,366.0	1,452.8	1.54%
Nonfarm Proprietors (4)									
Medium	253.2	259.9	266.8	274.0	281.1	288.4	326.6	367.3	2.86%
High	278.0	288.2	299.0	310.2	321.7	333.6	398.2	471.0	3.84%
Low	237.1	242.8	248.8	255.0	261.0	267.0	297.2	326.8	2.40%
Nonfarm Wage & Salary									
Medium	1,015.3	1,035.2	1,054.4	1,073.7	1,092.5	1,111.5	1,204.8	1,299.9	1.92%
High	1,085.2	1,114.9	1,144.1	1,173.4	1,202.3	1,232.1	1,379.4	1,527.7	2.56%
Low	932.5	948.3	963.5	977.9	991.0	1,003.8	1,062.3	1,119.6	1.34%
Manufacturing Employ.									
Medium	145.3	146.3	147.3	148.1	149.0	149.7	153.6	157.3	0.85%
High	153.7	155.7	157.6	159.5	161.3	163.1	172.3	182.2	1.43%
Low	133.9	134.2	134.5	134.7	134.9	134.9	134.2	133.1	0.21%
Durable Mfg.									
Medium	103.8	104.6	105.2	105.8	106.4	106.9	109.3	111.7	0.97%
High	109.4	110.7	111.9	113.0	114.1	115.2	120.5	126.1	1.44%
Low	96.2	96.4	96.6	96.7	96.8	96.9	96.4	95.6	0.37%
Nondurable Mfg.									
Medium	41.4	41.7	42.0	42.3	42.6	42.9	44.3	45.6	0.59%
High	44.2	45.0	45.7	46.4	47.1	47.9	51.8	56.1	1.39%
Low	37.7	37.9	38.0	38.0	38.0	38.0	37.9	37.5	-0.16%
Food Processing									
Medium	9.93	9.97	10.01	10.04	10.08	10.12	10.31	10.49	0.41%
High	10.26	10.33	10.40	10.46	10.52	10.58	10.87	11.10	0.63%
Low	9.58	9.61	9.63	9.66	9.69	9.72	9.89	10.06	0.24%
Textiles and Apparel									
Medium	4.62	4.53	4.44	4.37	4.29	4.22	3.94	3.71	-1.12%
High	5.00	4.94	4.87	4.81	4.75	4.70	4.48	4.28	-0.57%
Low	4.11	4.03	3.93	3.86	3.78	3.71	3.44	3.30	-1.56%
Lumber & Wood									
Medium	7.13	7.04	6.94	6.84	6.74	6.63	6.16	5.71	-1.27%
High	7.94	7.87	7.79	7.71	7.63	7.54	7.13	6.73	-0.65%
Low	6.33	6.22	6.12	6.01	5.90	5.78	5.25	4.78	-1.94%
Paper and Pulp									
Medium	6.11	6.06	6.01	5.96	5.92	5.88	5.67	5.51	-0.98%
High	6.27	6.23	6.19	6.15	6.12	6.08	5.91	5.76	-0.82%
Low	5.74	5.70	5.66	5.57	5.54	5.51	5.35	5.29	-1.14%

Portland Area Employment Forecast

Table 2

Medium, High and Low Growth Scenarios

(Clackamas, Multnomah, Washington, Yamhill and Clark counties)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Printing and Pubi.										
Medium	10.10	10.20	10.40	10.60	10.87	11.18	11.48	11.79	12.09	12.39
High	10.15	10.25	10.50	10.83	11.29	11.66	12.00	12.39	12.83	13.30
Low	9.87	10.00	9.94	10.08	10.25	10.36	10.49	10.65	10.84	11.04
Primary & Fab. Metals										
Medium	17.50	17.60	17.78	17.99	18.21	18.41	18.60	18.79	18.97	19.12
High	17.51	17.66	17.89	18.13	18.43	18.71	18.98	19.29	19.56	19.78
Low	17.47	17.53	17.65	17.77	17.97	18.15	18.32	18.52	18.67	18.77
Industrial Machines										
Medium	18.00	18.90	19.33	19.77	20.15	20.50	20.77	21.02	21.27	21.51
High	18.16	18.97	19.69	20.26	20.72	21.14	21.46	21.86	22.27	22.68
Low	17.85	18.34	18.77	18.99	19.16	19.34	19.56	19.76	20.02	20.20
Electrical Mach. & Instr.										
Medium	29.55	31.60	32.81	33.60	34.19	34.65	35.17	35.72	36.23	36.68
High	29.70	31.93	33.30	34.27	35.06	35.74	36.42	37.05	37.67	38.24
Low	28.55	29.49	30.09	30.58	30.98	31.36	31.66	31.89	32.15	32.40
Transp. Equipment										
Medium	10.20	10.00	9.70	9.46	9.61	9.75	9.88	9.99	10.05	10.08
High	10.50	10.30	10.00	9.53	9.77	9.96	10.19	10.48	10.70	10.85
Low	10.02	9.57	9.43	9.36	9.48	9.53	9.62	9.77	9.83	9.83
Other Durable Mfg.										
Medium	7.44	7.54	7.72	7.91	8.05	8.16	8.25	8.32	8.38	8.42
High	7.45	7.58	7.78	8.01	8.17	8.26	8.34	8.42	8.49	8.54
Low	7.41	7.46	7.59	7.77	7.88	7.98	8.04	8.11	8.16	8.19
Other Nondurable Mfg.										
Medium	7.70	7.60	7.50	7.43	7.50	7.56	7.62	7.71	7.81	7.92
High	7.29	7.45	7.56	7.68	7.82	7.93	8.06	8.22	8.42	8.64
Low	7.21	7.23	7.20	7.16	7.16	7.11	7.08	7.05	7.04	7.03
Nonmanuf. Employ. (5)										
Medium	687.8	705.7	726.3	744.4	762.5	780.6	798.2	815.7	832.9	851.3
High	692.7	717.6	741.8	767.1	789.5	811.5	833.9	857.6	880.8	905.4
Low	666.3	677.3	688.4	700.8	713.9	730.7	744.2	757.6	770.3	784.6
Construction & Mining										
Medium	42.50	41.00	41.80	42.60	43.50	44.30	44.90	45.70	46.50	47.42
High	44.00	45.00	42.00	42.85	44.03	44.86	45.84	47.18	48.52	49.86
Low	38.13	37.97	37.81	38.05	38.31	38.82	39.21	39.89	40.42	40.88
Private Service Prod. (6)										
Medium	537.27	555.08	573.18	588.47	603.35	618.35	633.19	647.67	661.99	677.41
High	539.82	561.74	585.61	606.64	624.78	642.92	661.31	680.57	699.34	719.59
Low	521.92	533.41	544.15	555.35	566.70	580.94	592.16	603.20	613.73	625.97

Portland Area Employment Forecast

Table 2

Medium, High and Low Growth Scenarios

(Clackamas, Multnomah, Washington, Yamhill and Clark counties)

	2005	2006	2007	2008	2009	2010	2015	2020	AARG (1994-2020)
Printing and Publ.									
Medium	12.70	13.00	13.28	13.52	13.76	13.99	15.06	15.94	1.80%
High	13.81	14.32	14.83	15.33	15.81	16.29	18.75	21.16	2.92%
Low	11.26	11.47	11.69	11.88	12.03	12.15	12.56	12.63	0.90%
Primary & Fab. Metals									
Medium	19.27	19.40	19.52	19.62	19.72	19.80	20.15	20.38	0.71%
High	19.99	20.17	20.34	20.50	20.64	20.78	21.38	21.96	1.00%
Low	18.84	18.88	18.91	18.92	18.91	18.89	18.67	18.35	0.30%
Industrial Machines									
Medium	21.80	22.10	22.35	22.57	22.82	23.08	24.26	25.10	1.54%
High	23.15	23.68	24.13	24.57	25.05	25.54	27.99	30.29	2.28%
Low	20.36	20.50	20.63	20.79	20.94	21.07	21.23	20.90	0.83%
Electrical Mach. & Instr.									
Medium	37.09	37.47	37.87	38.26	38.65	39.02	40.95	43.10	1.82%
High	38.79	39.33	39.88	40.44	41.00	41.53	44.34	47.47	2.19%
Low	32.64	32.88	33.14	33.44	33.74	34.02	35.47	37.10	1.23%
Transp. Equipment									
Medium	10.10	10.07	10.02	9.95	9.86	9.75	9.16	8.65	-0.63%
High	10.97	11.03	11.06	11.05	11.03	11.00	10.76	10.73	0.19%
Low	9.77	9.64	9.48	9.27	9.04	8.78	7.37	6.09	-1.97%
Other Durable Mfg.									
Medium	8.46	8.50	8.54	8.56	8.58	8.60	8.66	8.70	0.36%
High	8.60	8.65	8.70	8.74	8.77	8.81	8.91	8.95	0.47%
Low	8.23	8.26	8.29	8.31	8.32	8.34	8.37	8.40	0.22%
Other Nondurable Mfg.									
Medium	8.06	8.19	8.32	8.44	8.54	8.65	9.32	9.99	1.06%
High	8.90	9.17	9.44	9.70	9.95	10.21	11.83	13.76	2.31%
Low	7.05	7.05	7.04	7.01	6.96	6.90	6.63	6.24	-0.76%
Nonmanuf. Employ. (5)									
Medium	870.0	888.9	907.1	925.5	943.5	961.7	1,051.2	1,142.6	2.10%
High	931.5	959.2	986.5	1,013.9	1,041.1	1,069.0	1,207.0	1,345.5	2.74%
Low	798.6	814.1	828.9	843.1	856.2	869.0	928.1	986.4	1.52%
Construction & Mining									
Medium	48.32	49.22	50.13	51.01	51.79	52.63	56.54	60.71	1.58%
High	51.15	52.53	53.98	55.41	56.75	58.14	65.11	73.0	2.30%
Low	41.39	41.86	42.32	42.74	43.00	43.28	44.32	45.3	0.44%
Private Service Prod. (6)									
Medium	693.21	709.09	724.39	739.88	755.00	770.33	845.47	922.32	2.23%
High	741.38	764.63	787.50	810.43	833.21	856.74	972.78	1,089.01	2.89%
Low	637.98	651.37	664.21	676.37	687.58	698.59	749.02	798.66	1.67%

Portland Area Employment Forecast

Table 2

Medium, High and Low Growth Scenarios

(Clackamas, Multnomah, Washington, Yamhill and Clark counties)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Trans., Comm. & Utilities										
Medium	46.00	46.70	47.30	47.90	48.50	49.10	49.70	50.37	51.13	51.89
High	46.70	47.50	48.00	48.50	49.15	50.17	51.23	52.41	53.54	54.72
Low	43.33	43.96	44.66	45.36	45.86	46.41	46.93	47.53	48.09	48.71
Fin., Ins. & Real Est.										
Medium	62.70	63.80	64.90	66.20	67.52	69.09	70.50	71.85	73.17	74.64
High	66.27	68.29	70.96	74.00	76.78	79.27	81.55	83.69	85.82	88.18
Low	65.04	65.58	65.93	66.74	67.81	68.77	69.51	70.13	70.75	71.65
Wholesale Trade										
Medium	61.00	62.10	63.10	64.05	65.00	65.95	66.90	67.86	68.75	69.73
High	61.10	62.30	63.50	64.58	65.73	66.70	67.78	68.91	70.03	71.28
Low	58.50	58.62	59.38	60.26	61.19	62.38	63.25	64.03	64.73	65.53
Retail Trade										
Medium	145.10	148.28	151.90	154.99	158.01	161.05	164.09	167.00	169.88	173.00
High	141.14	144.90	150.04	154.57	157.76	161.89	165.67	169.99	173.64	177.58
Low	138.42	139.93	140.35	142.13	143.82	146.46	148.09	150.00	151.71	153.94
Health Services										
Medium	55.79	57.57	59.65	61.33	62.75	64.27	65.95	67.78	69.72	71.79
High	56.59	59.42	62.38	64.81	66.85	68.94	71.14	73.49	75.92	78.48
Low	54.74	55.28	56.11	57.20	58.62	60.19	61.60	63.01	64.43	65.95
Nonhealth Services										
Medium	166.69	176.63	186.32	194.01	201.57	208.89	216.04	222.81	229.33	236.36
High	168.02	179.33	190.74	200.17	208.50	215.96	223.92	232.10	240.39	249.35
Low	161.88	170.05	177.73	183.65	189.40	196.73	202.79	208.51	214.02	220.20
State & Local Gov.										
Medium	90.40	92.00	93.60	95.42	97.44	99.49	101.50	103.46	105.36	107.19
High	90.60	92.59	95.95	99.33	102.37	105.23	108.07	110.93	113.73	116.49
Low	89.01	88.65	89.00	89.88	91.23	92.84	94.40	95.89	97.31	98.67
Federal Civ. Gov.										
Medium	17.60	17.60	17.70	17.90	18.20	18.45	18.64	18.85	19.07	19.30
High	18.26	18.23	18.27	18.26	18.34	18.49	18.69	18.95	19.21	19.48
Low	17.20	17.30	17.40	17.50	17.70	18.10	18.42	18.64	18.86	19.08
Federal Mil. Gov.										
Medium	7.10	6.80	6.50	6.28	6.33	6.38	6.41	6.44	6.46	6.47
High	7.10	6.80	6.50	6.28	6.33	6.38	6.42	6.44	6.46	6.47
Low	6.89	6.62	6.36	6.28	6.33	6.38	6.42	6.44	6.46	6.47

Portland Area Employment Forecast

Table 2

Medium, High and Low Growth Scenarios

(Clackamas, Multnomah, Washington, Yamhill and Clark counties)

	2005	2006	2007	2008	2009	2010	2015	2020	AARG (1994-2020)
Trans., Comm. & Utilities									
Medium	52.61	53.38	54.12	54.91	55.70	56.51	60.68	64.77	1.41%
High	55.87	57.12	58.37	59.64	60.90	62.22	68.96	75.30	2.00%
Low	49.26	49.92	50.58	51.24	51.82	52.41	55.32	58.21	0.99%
Fin., Ins. & Real Est.									
Medium	76.10	77.50	78.85	80.15	81.52	82.90	89.98	96.87	1.75%
High	90.58	92.94	95.24	97.51	99.84	102.20	114.08	125.63	2.77%
Low	72.58	73.54	74.51	75.42	76.43	77.46	83.14	89.38	1.44%
Wholesale Trade									
Medium	70.78	71.80	72.70	73.77	74.80	76.00	81.17	85.33	1.40%
High	72.61	73.99	75.26	76.68	78.06	79.64	86.47	91.95	1.69%
Low	66.36	67.27	68.09	68.78	69.33	69.80	70.86	70.96	0.68%
Retail Trade									
Medium	176.18	179.56	182.72	186.07	189.27	192.49	209.54	228.27	1.86%
High	182.51	188.31	193.99	199.83	205.72	211.87	243.96	277.16	2.63%
Low	155.87	158.53	161.04	163.53	165.80	168.12	180.13	192.13	1.19%
Health Services									
Medium	73.92	76.08	78.30	80.56	82.83	85.11	96.50	108.60	2.71%
High	81.12	83.86	86.63	89.43	92.24	95.09	108.99	122.72	3.19%
Low	67.49	69.13	70.82	72.54	74.26	76.02	84.93	95.00	2.18%
Nonhealth Services									
Medium	243.63	250.77	257.70	264.41	270.89	277.32	307.61	338.48	2.98%
High	258.69	268.41	278.00	287.35	296.46	305.72	350.32	396.26	3.60%
Low	226.42	232.99	239.17	244.85	249.94	254.77	274.62	292.99	2.41%
State & Local Gov.									
Medium	108.96	110.79	112.59	114.45	116.29	118.10	127.33	136.55	1.67%
High	119.22	122.02	124.76	127.57	130.36	133.13	146.89	159.95	2.29%
Low	99.98	101.36	102.69	104.11	105.46	106.77	113.33	120.02	1.17%
Federal Civ. Gov.									
Medium	19.52	19.75	19.98	20.21	20.44	20.67	21.84	23.04	1.03%
High	19.73	19.99	20.24	20.49	20.75	21.00	22.26	23.57	1.11%
Low	19.29	19.51	19.72	19.93	20.14	20.35	21.41	22.48	0.93%
Federal Mil. Gov.									
Medium	6.48	6.48	6.49	6.49	6.49	6.49	6.49	6.49	-0.54%
High	6.48	6.48	6.49	6.49	6.49	6.49	6.49	6.49	-0.54%
Low	6.48	6.48	6.49	6.49	6.49	6.49	6.49	6.49	-0.54%

Population, Household and Income Forecast
(Medium Growth Scenario)
1995 to 2020

Table 3

	1990	1991	1992	1993	1994	1995	1996	1997
Population, total								
Portland-Vancouver (thousands)	1,479.7	1,535.4	1,566.2	1,608.4	1,638.6	1,669.2	1,698.6	1,731.4
%change	3.6%	3.8%	2.0%	2.7%	1.9%	1.9%	1.8%	1.9%
U.S. (millions)	249.9	252.7	255.5	258.3	261.0	263.6	266.2	268.7
%change	1.0%	1.1%	1.1%	1.1%	1.0%	1.0%	1.0%	0.9%
Household, total								
Portland-Vancouver (thousands)	576.1	597.8	609.8	629.9	647.7	661.8	674.2	688.1
%change	5.0%	3.8%	2.0%	3.3%	2.8%	2.2%	1.9%	2.1%
U.S. (millions)	94.3	94.2	96.0	97.8	99.8	101.3	102.6	103.8
%change	1.0%	-0.1%	1.9%	1.9%	2.0%	1.5%	1.3%	1.2%
Migration								
Portland-Vancouver (thousands)	38.400	43.900	19.100	29.300	17.900	16.200	16.300	20.400
change	18.700	5.500	-24.800	10.200	-11.400	-1.700	0.100	4.100
Building Permits								
Portland-Vancouver (thousands)	8.315	7.049	8.727	9.934	10.276	8.723	7.757	7.586
change	1.227	-1.266	1.678	1.207	0.342	-1.552	-0.966	-0.171
U.S. (millions)	1.203	1.009	1.203	1.293	1.429	1.349	1.329	1.393
change	-0.179	-0.194	0.194	0.090	0.136	-0.080	-0.020	0.065

INCOME

	1990	1991	1992	1993	1994	1995	1996	1997
Per Capita Income, 1987$								
Portland-Vancouver (thousands)	16.877	16.489	16.816	17.222	17.658	17.953	18.247	18.582
%change	0.2%	-2.3%	2.0%	2.4%	2.5%	1.7%	1.6%	1.8%
U.S. (thousands)	16.270	16.064	16.337	16.437	16.862	17.106	17.277	17.471
%change	0.4%	-1.3%	1.7%	0.6%	2.6%	1.4%	1.0%	1.1%
Per Capita Income								
Portland-Vancouver (thousands)	19.396	19.741	20.765	21.804	22.844	23.990	25.234	26.552
%change	5.4%	1.8%	5.2%	5.0%	4.8%	5.0%	5.2%	5.2%
U.S. (thousands)	18.699	19.233	20.174	20.810	21.813	22.859	23.893	24.964
%change	5.6%	2.9%	4.9%	3.2%	4.8%	4.8%	4.5%	4.5%
Personal Income, 1987$								
Portland-Vancouver (millions)	24,972.7	25,316.9	26,337.8	27,700.1	28,934.8	29,966.7	30,994.4	32,173.7
%change	3.8%	1.4%	4.0%	5.2%	4.5%	3.6%	3.4%	3.8%
U.S. (billions)	40.7	40.6	41.7	42.5	44.0	45.1	46.0	47.0
%change	1.5%	-0.2%	2.8%	1.7%	3.7%	2.5%	2.0%	2.1%
Personal Income								
Portland-Vancouver (millions)	28,701	30,312	32,525	34,974	37,267	40,047	42,865	45,975
%change	9.2%	5.6%	7.3%	7.5%	6.6%	7.5%	7.0%	7.3%
U.S. (billions)	4,673.8	4,860.3	5,154.4	5,375.1	5,692.8	6,026.6	6,360.6	6,708.6
%change	6.7%	4.0%	6.1%	4.3%	5.9%	5.9%	5.5%	5.5%
Wage Disbursements								
Portland-Vancouver (millions)	17,359	18,274	19,600	21,320	22,904	24,535	26,255	28,286
%change	9.7%	5.3%	7.3%	8.8%	7.4%	7.1%	7.0%	7.7%
U.S (billions)	2,745.0	2,816.1	2,974.8	3,080.8	3,273.7	3,443.8	3,598.2	3,778.2
%change	6.1%	2.6%	5.6%	3.6%	6.3%	5.2%	4.5%	5.0%
Social Sec. Benefits								
Portland-Vancouver (millions)	1,505.7	1,623.8	1,715.1	1,857.1	2,001.6	2,138.2	2,299.3	2,480.8
%change	6.1%	7.8%	5.6%	8.3%	7.8%	6.8%	7.5%	7.9%
U.S (billions)	224.9	236.2	248.7	261.3	281.4	296.5	312.5	330.3
%change	6.4%	5.0%	5.3%	5.1%	7.7%	5.3%	5.4%	5.7%

Population, Household and Income Forecast
(Medium Growth Scenario)
1995 to 2020

Table 3

	1998	1999	2000	2005	2010	2015	2020	(1990-2020)
Population, total								
Portland-Vancouver (thousands)	1,768.3	1,804.1	1,837.6	1,993.3	2,152.8	2,315.4	2,475.0	1.7%
%change	2.1%	2.0%	1.9%	1.6%	1.5%	1.4%	1.3%	
U.S. (millions)	271.2	273.6	276.1	287.9	300.0	312.6	325.4	0.9%
%change	0.9%	0.9%	0.9%	0.8%	0.8%	0.8%	0.8%	
Household, total								
Portland-Vancouver (thousands)	704.0	720.3	736.0	812.1	891.5	972.0	1,052.0	2.0%
%change	2.3%	2.3%	2.2%	1.9%	1.8%	1.6%	1.6%	
U.S. (millions)	105.0	106.2	107.4	113.7	120.7	128.0	136.5	1.2%
%change	1.1%	1.1%	1.1%	1.2%	1.2%	1.2%	1.3%	
Migration								
Portland-Vancouver (thousands)	24.100	20.300	18.600	16.800	18.200	17.300	19.200	N.M.
change	3.700	-3.800	-1.700	0.200	0.600	0.900	0.800	
Building Permits								
Portland-Vancouver (thousands)	7.569	7.376	7.217	7.117	7.234	7.264	7.339	N.M.
change	-0.017	-0.193	-0.159	-0.022	0.005	-0.011	0.010	
U.S. (millions)	1.402	1.410	1.444	1.549	1.589	1.619	1.647	N.M.
change	0.009	0.008	0.034	0.010	0.006	0.008	0.005	

INCOME

	1998	1999	2000	2005	2010	2015	2020	(1990-2020)
Per Capita Income, 1987$								
Portland-Vancouver (thousands)	18.785	18.939	19.127	20.350	21.234	22.146	23.168	1.1%
%change	1.1%	0.8%	1.0%	1.2%	0.8%	0.9%	0.9%	
U.S. (thousands)	17.637	17.802	18.027	19.428	20.638	22.069	23.680	1.3%
%change	1.0%	0.9%	1.3%	1.4%	1.2%	1.4%	1.4%	
Per Capita Income								
Portland-Vancouver (thousands)	27.746	29.010	30.355	38.117	47.375	58.478	72.363	4.5%
%change	4.5%	4.6%	4.6%	4.6%	4.4%	4.3%	4.4%	
U.S. (thousands)	26.052	27.270	28.609	36.391	46.047	58.278	73.962	4.7%
%change	4.4%	4.7%	4.9%	4.9%	4.8%	4.9%	4.9%	
Personal Income, 1987$								
Portland-Vancouver (millions)	33,217.0	34,168.6	35,147.8	40,562.8	45,713.2	51,275.1	57,341.2	2.8%
%change	3.2%	2.9%	2.9%	2.8%	2.3%	2.3%	2.3%	
U.S. (billions)	47.8	48.7	49.8	55.9	61.9	69.0	77.0	2.2%
%change	1.9%	1.8%	2.2%	2.3%	2.0%	2.2%	2.2%	
Personal Income								
Portland-Vancouver (millions)	49,067	52,341	55,783	75,980	101,993	135,403	179,103	6.3%
%change	6.7%	6.7%	6.6%	6.3%	6.0%	5.7%	5.8%	
U.S. (billions)	7,065.2	7,462.1	7,897.7	10,477.1	13,813.9	18,216.6	24,065.2	5.6%
%change	5.3%	5.6%	5.8%	5.7%	5.7%	5.7%	5.7%	
Wage Disbursements								
Portland-Vancouver (millions)	30,210	32,233	34,304	46,398	61,876	81,296	106,225	6.2%
%change	6.8%	6.7%	6.4%	6.2%	5.8%	5.5%	5.5%	
U.S. (billions)	3,963.4	4,177.4	4,409.3	5,779.8	7,550.4	9,856.8	12,870.0	5.3%
%change	4.9%	5.4%	5.6%	5.6%	5.5%	5.5%	5.5%	
Social Sec. Benefits								
Portland-Vancouver (millions)	2,688.8	2,923.1	3,162.5	4,623.2	6,668.2	9,417.6	13,200.8	7.5%
%change	8.4%	8.7%	8.2%	7.9%	7.4%	6.9%	7.0%	
U.S. (billions)	353.4	380.4	409.6	583.6	820.7	1,144.7	1,589.9	6.7%
%change	7.0%	7.7%	7.7%	7.1%	7.0%	6.8%	6.8%	

Population, Household and Income Forecast
(Medium Growth Scenario)
1995 to 2020

Table 3

	1990	1991	1992	1993	1994	1995	1996	1997
Other Labor Income								
Portland-Vancouver (millions)	1,760.2	1,929.9	2,117.5	2,311.8	2,524.6	2,727.3	2,991.6	3,269.2
%change	12.6%	9.6%	9.7%	9.2%	9.2%	8.0%	9.7%	9.3%
U.S. (billions)	274.2	299.0	328.7	355.3	382.5	415.1	458.4	499.1
%change	8.9%	9.0%	9.9%	8.1%	7.7%	8.5%	10.4%	8.9%
Div., Interest, and Rent								
Portland-Vancouver (millions)	5,013.1	5,119.7	5,170.1	5,374.2	5,641.9	6,193.8	6,711.3	7,219.6
%change	7.5%	2.1%	1.0%	3.9%	5.0%	9.8%	8.4%	7.6%
U.S. (billions)	828.5	835.1	820.6	843.4	880.9	965.8	1,043.2	1,115.0
%change	6.1%	0.8%	-1.7%	2.8%	4.5%	9.6%	8.0%	6.9%
Transfer Payments								
Portland-Vancouver (millions)	3,766.8	4,203.2	4,724.3	5,103.8	5,341.9	5,576.9	5,943.4	6,347.6
%change	11.2%	11.6%	12.4%	8.0%	4.7%	4.4%	6.6%	6.8%
U.S. (billions)	687.6	770.1	860.2	915.4	961.3	1,004.6	1,064.3	1,129.4
%change	10.0%	12.0%	11.7%	6.4%	5.0%	4.5%	5.9%	6.1%
Farm Prop. Income								
Portland-Vancouver (millions)	158.0	159.8	176.4	172.7	183.1	164.5	174.5	193.1
%change	8.1%	1.1%	10.4%	-2.1%	6.0%	-10.2%	6.1%	10.6%
U.S. (billions)	41.9	36.7	44.4	37.3	39.5	35.5	37.7	41.7
%change	4.2%	-12.6%	21.1%	-15.9%	6.0%	-10.2%	6.1%	10.6%
Nonfarm Prop. Income								
Portland-Vancouver (millions)	2,264.0	2,358.7	2,591.8	2,799.2	3,004.4	3,162.4	3,276.4	3,341.9
%change	2.4%	4.2%	9.9%	8.0%	7.3%	5.3%	3.6%	2.0%
U.S. (billions)	321.4	339.5	374.4	404.3	436.1	458.3	471.3	475.5
%change	4.7%	5.6%	10.3%	8.0%	7.9%	5.1%	2.8%	0.9%

Population, Household and Income Forecast
(Medium Growth Scenario)
1995 to 2020

Table 3

	1998	1999	2000	2005	2010	2015	2020	(1990-2020)
Other Labor Income								
Portland-Vancouver (millions)	3,515.4	3,738.5	3,977.2	5,536.4	7,775.6	10,817.4	14,907.1	7.4%
%change	7.5%	6.3%	6.4%	7.0%	7.0%	6.7%	6.6%	
U.S. (billions)	530.7	556.9	584.3	760.7	1,010.7	1,347.4	1,796.3	6.5%
%change	6.3%	4.9%	4.9%	5.7%	5.9%	5.9%	5.9%	
Div., Interest, and Rent								
Portland-Vancouver (millions)	7,832.4	8,528.5	9,202.4	13,076.0	17,648.7	23,514.9	31,376.2	6.3%
%change	8.5%	8.9%	7.9%	6.9%	6.0%	5.7%	6.0%	
U.S. (billions)	1,198.9	1,295.9	1,388.4	1,909.6	2,511.5	3,266.9	4,259.1	5.6%
%change	7.5%	8.1%	7.1%	6.3%	5.5%	5.2%	5.5%	
Transfer Payments								
Portland-Vancouver (millions)	6,769.3	7,229.5	7,739.0	10,745.0	14,938.6	20,701.9	28,732.3	7.0%
%change	6.6%	6.8%	7.0%	6.7%	6.9%	6.7%	6.8%	
U.S. (billions)	1,196.0	1,271.6	1,358.1	1,887.5	2,625.7	3,668.9	5,167.4	7.0%
%change	5.9%	6.3%	6.8%	6.7%	6.9%	7.0%	7.1%	
Farm Prop. Income								
Portland-Vancouver (millions)	202.5	210.6	219.0	266.1	306.5	346.7	392.3	3.1%
%change	4.9%	4.0%	4.0%	3.9%	2.5%	2.5%	2.5%	
U.S. (billions)	43.7	45.5	47.3	57.5	66.2	74.9	84.7	2.4%
%change	4.9%	4.0%	4.0%	3.9%	2.5%	2.5%	2.5%	
Nonfarm Prop. Income								
Portland-Vancouver (millions)	3,440.1	3,550.1	3,745.2	4,904.9	6,545.5	8,706.8	11,417.8	5.5%
%change	2.9%	3.2%	5.5%	5.2%	6.0%	6.1%	5.5%	
U.S. (billions)	485.8	495.2	519.9	665.6	870.2	1,146.4	1,480.6	5.2%
%change	2.2%	1.9%	5.0%	4.6%	5.6%	6.1%	5.1%	

Population, Household, and Income Forecast

Table 4

Medium, High and Low Growth Scenarios

(Clackamas, Multnomah, Washington, Yamhill and Clark counties)

	1995	1996	1997	1998	1999	2000	2001	2002
Population, total								
Medium (thousands)	1,669.2	1,698.6	1,731.4	1,768.3	1,804.1	1,837.6	1,868.3	1,899.3
High	1,670.9	1,704.9	1,749.1	1,802.1	1,857.5	1,908.7	1,956.5	2,006.7
Low	1,669.2	1,694.3	1,712.1	1,733.0	1,752.4	1,773.4	1,793.2	1,816.8
Household, total								
Medium (thousands)	656.8	669.4	683.3	699.2	715.4	731.0	745.7	760.5
High	662.5	678.0	694.6	722.7	746.9	770.1	792.1	814.4
Low	661.8	672.7	681.3	695.8	704.0	713.2	722.3	733.4
Migration								
Medium (thousands)	16.2	16.3	20.4	24.1	20.3	18.6	16.1	17.5
High	16.2	19.7	30.6	37.5	35.1	29.4	27.9	29.5
Low	16.2	7.1	5.1	7.8	6.8	8.0	8.4	11.7
Building Permits								
Medium (thousands)	8.7	7.8	7.6	7.6	7.4	7.2	7.1	7.0
High	8.9	8.2	8.5	9.1	9.3	9.1	8.8	8.9
Low	8.6	7.4	6.7	6.3	6.0	5.9	5.8	5.8
INCOME								
Per Capita Income, 1987$								
Medium (thousands)	18.0	18.2	18.6	18.8	18.9	19.1	19.4	19.6
High	18.0	18.4	18.8	19.1	19.2	19.2	19.4	19.7
Low	17.7	17.9	18.1	18.2	18.3	18.3	18.5	18.7
Per Capita Income								
Medium (thousands)	24.0	25.2	26.6	27.7	29.0	30.4	31.8	33.3
High	24.1	25.4	26.7	27.9	29.1	30.3	31.6	33.1
Low	23.7	24.8	26.0	27.1	28.4	29.8	31.3	32.8
Personal Income, 1987$								
Medium (millions)	29,966.7	30,994.4	32,173.7	33,217.0	34,168.6	35,147.8	36,183.1	37,261.1
High	30,145.1	31,427.8	32,962.5	34,401.4	35,606.4	36,716.0	37,992.9	39,513.8
Low	29,615.4	30,278.8	30,931.4	31,545.5	31,989.5	32,524.8	33,124.4	33,891.7
Personal Income								
Medium (millions)	40,046.5	42,865.3	45,975.3	49,066.9	52,340.8	55,783.2	59,373.2	63,187.9
High	40,205.3	43,284.2	46,785.2	50,362.9	54,076.3	57,884.3	61,901.0	66,363.3
Low	39,615.2	41,997.1	44,455.6	47,030.6	49,769.0	52,889.3	56,073.3	59,569.8
Wage Disbursements								
Medium (millions)	24,535.3	26,254.7	28,285.8	30,209.7	32,233.4	34,303.5	36,452.5	38,731.6
High	24,721.4	26,676.9	29,037.6	31,364.2	33,702.1	36,056.3	38,542.1	41,306.1
Low	24,079.1	25,412.0	26,915.9	28,514.9	30,315.9	32,373.0	34,356.9	36,507.9

Population, Household, and Income Forecast

Table 4

Medium, High and Low Growth Scenarios

(Clackamas, Multnomah, Washington, Yamhill and Clark counties)

	2003	2004	2005	2010	2015	2020	AARG (1994-2020)
Population, total							
Medium (thousands)	1,931.4	1,962.6	1,993.3	2,152.8	2,315.4	2,475.0	1.60%
High	2,058.1	2,109.6	2,160.8	2,440.9	2,752.6	3,087.7	2.47%
Low	1,840.6	1,863.5	1,886.9	2,014.0	2,130.9	2,226.6	1.19%
Household, total							
Medium (thousands)	775.8	790.9	806.0	884.2	963.8	1,044.2	1.89%
High	837.3	860.4	883.6	1,008.4	1,145.4	1,295.3	2.73%
Low	744.7	755.8	767.2	827.8	883.1	929.7	1.43%
Migration							
Medium (thousands)	17.9	16.6	16.8	18.2	17.3	19.3	N.M.
High	30.1	28.6	28.3	32.4	33.5	37.6	N.M.
Low	11.4	10.4	12.0	12.8	9.1	7.7	N.M.
Building Permits							
Medium (thousands)	7.1	7.1	7.1	7.2	7.3	7.3	N.M.
High	9.0	9.2	9.2	9.7	10.0	10.1	N.M.
Low	6.0	6.0	6.0	6.2	6.2	6.5	N.M.
INCOME							
Per Capita Income, 1987$							
Medium (thousands)	19.9	20.1	20.3	21.2	22.1	23.2	1.05%
High	20.0	20.3	20.6	21.8	23.0	24.0	1.19%
Low	18.8	19.1	19.3	19.9	20.4	21.1	0.69%
Per Capita Income							
Medium (thousands)	34.8	36.4	38.1	47.4	58.5	72.4	4.53%
High	34.5	36.1	37.8	46.6	56.6	67.4	4.25%
Low	34.4	36.2	37.9	47.8	59.7	75.6	4.71%
Personal Income, 1987$							
Medium (millions)	38,339.9	39,460.8	40,562.8	45,713.2	51,275.1	57,341.2	2.67%
High	41,080.8	42,780.6	44,480.9	53,317.7	63,365.2	74,161.3	3.69%
Low	34,677.9	35,562.8	36,385.2	40,125.6	43,469.4	46,963.6	1.88%
Personal Income							
Medium (millions)	67,210.6	71,495.7	75,980.4	101,993.3	135,403.1	179,103.0	6.22%
High	71,092.2	76,218.1	81,584.8	113,794.3	155,669.7	208,183.1	6.84%
Low	63,292.6	67,368.6	71,563.4	96,329.9	127,240.9	168,361.8	5.97%
Wage Disbursements							
Medium (millions)	41,119.9	43,693.3	46,398.4	61,875.9	81,296.4	106,225.0	6.08%
High	44,257.2	47,495.0	50,982.1	72,361.4	100,316.7	135,220.8	7.07%
Low	38,738.4	41,209.3	43,753.2	58,793.9	77,056.3	100,563.6	5.86%

Population, Household, and Income Forecast

Table 4

Medium, High and Low Growth Scenarios

(Clackamas, Multnomah, Washington, Yamhill and Clark counties)

	1995	1996	1997	1998	1999	2000	2001	2002
Social Sec. Benefits								
Medium (millions)	2,138.2	2,299.3	2,480.8	2,688.8	2,923.1	3,162.5	3,412.6	3,679.3
High	2,151.9	2,329.2	2,531.7	2,768.6	3,018.2	3,262.0	3,525.4	3,818.9
Low	2,109.2	2,235.8	2,375.9	2,554.8	2,763.6	2,982.1	3,204.1	3,446.7
Other Labor Income								
Medium (millions)	2,727.3	2,991.6	3,269.2	3,515.4	3,738.5	3,977.2	4,235.8	4,521.1
High	2,727.6	2,989.9	3,262.9	3,486.3	3,630.5	3,749.1	3,935.1	4,217.5
Low	2,720.5	2,967.7	3,226.8	3,417.4	3,516.1	3,622.5	3,800.6	4,064.5
Div., Interest, and Rent								
Medium (millions)	6,193.8	6,711.3	7,219.6	7,832.4	8,528.5	9,202.4	9,876.3	10,597.8
High	6,192.3	6,722.2	7,286.0	7,974.8	8,743.4	9,463.9	10,190.3	11,004.3
Low	6,203.2	6,704.3	7,154.9	7,706.6	8,364.2	8,988.5	9,614.0	10,336.8
Transfer Payments								
Medium (millions)	5,576.9	5,943.4	6,347.6	6,769.3	7,229.5	7,739.0	8,271.5	8,836.2
High	5,566.2	5,952.3	6,370.4	6,848.8	7,423.4	8,041.7	8,677.6	9,345.7
Low	5,572.3	5,902.2	6,247.2	6,624.8	6,987.0	7,419.5	7,900.5	8,391.4
Farm Prop. Income								
Medium (millions)	164.5	174.5	193.1	202.5	210.6	219.0	227.8	236.9
High	165.4	176.4	196.0	206.6	221.1	239.5	253.8	265.2
Low	163.6	172.7	190.1	197.8	209.7	225.4	236.6	244.8

Population, Household, and Income Forecast

Table 4

Medium, High and Low Growth Scenarios

(Clackamas, Multnomah, Washington, Yamhill and Clark counties)

	2003	2004	2005	2010	2015	2020	AARG (1994-2020)
Social Sec. Benefits							
Medium (millions)	3,970.1	4,286.2	4,623.2	6,668.2	9,417.6	13,200.8	7.52%
High	4,144.1	4,507.5	4,903.2	7,417.1	10,946.0	15,634.8	8.23%
Low	3,708.1	3,990.8	4,291.8	5,998.6	8,193.8	11,251.0	6.87%
Other Labor Income							
Medium (millions)	4,835.3	5,173.1	5,536.4	7,775.6	10,817.4	14,907.1	7.07%
High	4,545.1	4,923.8	5,301.4	7,652.0	10,654.0	14,206.0	6.87%
Low	4,372.7	4,722.9	5,078.5	7,459.1	10,634.0	14,944.8	7.08%
Div., Interest, and Rent							
Medium (millions)	11,379.5	12,231.1	13,076.0	17,648.7	23,514.9	31,376.2	6.82%
High	11,907.8	12,904.2	13,901.3	19,504.9	26,934.6	35,524.9	7.33%
Low	11,102.3	11,932.3	12,738.2	17,195.4	23,051.4	31,945.3	6.90%
Transfer Payments							
Medium (millions)	9,437.8	10,072.8	10,745.0	14,938.6	20,701.9	28,732.3	6.68%
High	10,025.6	10,757.9	11,531.1	16,338.4	23,034.8	32,043.7	7.13%
Low	8,959.7	9,583.6	10,282.4	14,437.4	19,993.3	27,761.1	6.54%
Farm Prop. Income							
Medium (millions)	246.4	256.2	266.1	306.5	346.7	392.3	2.97%
High	277.1	289.6	302.6	376.8	469.1	581.8	4.55%
Low	253.2	262.0	271.0	320.8	379.3	450.0	3.52%

Population in the 1990 U.S. Census

Summary Tape File 1A: Table P11

Age	Clackamas	Clark	Columbia	Marion	Multnomah	Polk	Washington	Yamhill	TOTAL
School Age (5-18)	**58,536**	**52,401**	**8,456**	**46,442**	**100,231**	**10,559**	**62,967**	**14,710**	**354,302**
Under 1 year	3,401	3,390	500	3,056	7,582	482	4,244	796	23,451
1 and 2 years	8,015	7,682	1,164	6,982	17,617	1,473	10,242	2,055	55,230
3 and 4 years	7,978	7,459	1,129	6,875	16,497	1,446	9,920	2,058	53,362
5 years	4,098	3,841	565	3,456	8,055	735	4,985	1,078	26,813
6 years	4,179	3,795	583	3,468	7,744	735	4,796	1,075	26,375
7 to 9 years	13,063	11,831	1,840	10,643	23,007	2,386	14,777	3,424	80,971
10 and 11 years	8,924	7,943	1,328	6,904	14,855	1,638	9,452	2,283	53,327
12 and 13 years	8,519	7,565	1,287	6,536	13,763	1,509	8,722	2,098	49,999
14 years	4,118	3,658	611	3,089	6,597	710	4,140	941	23,864
15 years	4,042	3,602	619	3,079	6,520	676	4,212	963	23,713
16 years	3,993	3,476	587	3,134	6,258	677	4,043	948	23,116
17 years	4,073	3,446	583	3,066	6,425	637	4,053	855	23,138
18 years	3,527	3,244	453	3,067	7,007	856	3,787	1,045	22,986
19 years	3,475	3,232	477	3,301	8,338	974	3,783	1,175	24,755
20 years	3,327	3,082	406	3,339	8,717	928	3,907	1,095	24,801
21 years	3,054	2,828	402	3,131	8,452	909	3,906	936	23,618
22 to 24 years	9,031	8,631	1,029	9,183	26,162	2,012	12,715	2,372	71,135
25 to 29 years	18,731	18,282	2,379	17,744	51,515	3,070	27,458	4,587	143,766
30 to 34 years	23,347	20,926	2,980	19,150	56,077	3,488	30,503	5,335	161,806
35 to 39 years	25,895	21,331	3,226	18,899	56,293	4,023	30,097	5,504	165,268
40 to 44 years	25,397	19,663	3,160	16,778	46,671	3,734	26,591	4,785	146,779
45 to 49 years	19,808	14,985	2,476	12,758	32,179	2,720	19,087	3,692	107,705
50 to 54 years	14,246	11,018	1,909	10,009	24,017	2,192	13,498	2,759	79,648
55 to 59 years	11,668	8,957	1,601	8,999	21,291	2,073	10,839	2,523	67,951
60 and 61 years	4,371	3,513	613	3,452	8,812	805	4,030	998	26,594
62 to 64 years	6,581	5,306	930	5,625	14,043	1,246	6,201	1,523	41,455
65 to 69 years	10,604	8,348	1,486	9,567	23,426	2,250	9,874	2,568	68,123
70 to 74 years	8,067	6,716	1,318	8,239	19,928	1,909	7,875	2,287	56,339
75 to 79 years	6,115	4,960	966	6,613	16,203	1,486	6,263	1,821	44,427
80 to 84 years	3,913	3,043	553	4,597	10,707	969	4,129	1,050	28,961
85 years and over	3,290	2,300	397	3,744	9,129	793	3,425	922	24,000
County	**278,850**	**238,053**	**37,557**	**228,483**	**583,887**	**49,541**	**311,554**	**65,551**	**1,793,476**

Population Forecast by Age

(Clackamas, Multnomah, Washington, Yamhill and Clark counties).

Years	1990	1991	1992	1993	1994	1995	2000	2005	2010	2015
0 to 4	109.3	117.5	120.6	124.4	126.7	128.1	134.2	141.2	150.3	160.9
5 to 9	109.8	114.6	116.3	116.3	118.4	121.0	132.1	139.8	147.9	157.4
10 to 14	103.5	110.9	113.0	115.8	118.0	119.5	128.2	136.6	144.7	153.3
15 to 19	95.5	96.3	98.0	101.2	103.1	106.4	122.4	133.0	142.2	150.9
20 to 24	98.3	101.2	103.4	105.8	107.8	109.8	125.0	136.8	147.7	157.3
25 to 29	120.6	119.4	117.5	116.4	118.6	119.8	128.9	139.3	150.6	161.4
30 to 34	136.2	139.6	138.3	140.0	142.6	141.7	137.1	141.1	149.9	160.3
35 to 39	139.1	143.7	146.8	150.7	153.5	153.8	147.7	145.5	149.4	157.2
40 to 44	123.0	133.9	135.6	140.9	143.5	146.0	151.0	149.7	150.1	154.4
45 to 49	89.7	94.6	106.5	114.4	116.5	120.8	140.4	147.5	149.7	152.2
50 to 54	65.5	70.2	75.2	81.1	82.6	87.4	116.8	134.6	143.4	147.8
55 to 59	55.3	56.0	58.1	60.2	61.3	64.4	89.9	113.1	129.0	138.3
60 to 64	55.4	55.6	54.6	54.7	55.7	56.7	69.5	89.4	108.3	122.2
65 to 69	54.8	54.7	54.1	54.0	55.0	55.0	57.8	69.7	86.0	101.6
70 to 74	44.8	46.2	47.1	48.6	49.5	49.8	50.1	55.2	66.0	79.4
75 and over	77.2	80.9	81.1	84.0	85.6	88.8	106.5	120.7	137.5	160.6
Total	**1,477.9**	**1,535.4**	**1,566.2**	**1,608.4**	**1,638.6**	**1,669.2**	**1,837.6**	**1,993.3**	**2,152.8**	**2,315.4**

Note: Population figures are shown in thousands.

Oregon State
Economic and Revenue Forecast

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	(Income in Billions of Current Dollars)										
TOTAL PERSONAL INCOME											
Oregon	51.92	55.62	58.96	63.40	67.71	71.44	75.76	80.63	85.62	90.96	96.50
%Change	5.6	7.1	6.0	7.5	6.8	5.5	6.1	6.4	6.2	6.2	6.1
U.S.	4860.30	5154.40	5375.10	5702.20	6051.50	6359.40	6717.50	7097.50	7493.30	7914.30	8367.30
%Change	4.0	6.1	4.3	6.1	6.1	5.1	5.6	5.7	5.6	5.6	5.7
WAGE AND SALARY INCOME											
Oregon	28.99	30.98	32.78	35.56	38.06	39.94	42.03	44.67	47.35	50.24	53.12
%Change	4.6	6.9	5.8	8.5	7.0	4.9	5.2	6.3	6.0	6.1	5.7
U.S.	2816.10	2974.80	3080.80	3279.50	3468.30	3624.50	3602.30	4006.70	4219.50	4443.10	4688.40
%Change	2.6	5.6	3.6	6.4	5.8	4.5	4.9	5.4	5.3	5.3	5.5
OTHER LABOR INCOME											
Oregon	3.14	3.46	3.79	4.14	4.53	4.92	5.30	5.78	6.25	6.75	7.28
%Change	9.0	10.0	9.7	9.2	9.3	8.6	7.8	8.9	8.2	8.0	7.9
U.S.	299.10	328.70	355.30	381.20	411.60	441.70	471.10	504.00	538.20	574.30	614.30
%Change	9.0	9.9	8.1	7.3	8.0	7.3	6.7	7.0	6.8	6.7	7.0
NONFARM PROPRIETOR'S INCOME											
Oregon	4.44	4.89	5.35	5.87	6.10	6.29	6.68	7.14	7.57	8.01	8.50
%Change	7.2	10.2	9.5	9.7	3.9	3.0	6.3	6.8	6.0	5.8	6.1
U.S.	339.50	374.40	404.30	434.20	442.90	451.20	477.80	505.40	533.50	562.90	594.90
%Change	5.6	10.3	8.0	7.4	2.0	1.9	5.9	5.8	5.6	5.5	5.7
DIVIDEND, INTEREST, AND RENT											
Oregon	9.46	9.64	9.84	10.46	11.26	11.94	12.81	13.64	14.43	15.33	16.28
%Change	3.0	1.9	2.0	6.4	7.6	6.1	7.2	6.5	5.7	6.3	6.2
U.S.	844.60	830.70	853.70	897.30	971.80	1028.80	1096.50	1155.70	1209.60	1274.90	1344.10
%Change	0.8	-1.6	2.8	5.1	8.3	5.9	6.6	5.4	4.7	5.4	5.4
TRANSFER PAYMENTS											
Oregon	8.60	9.55	10.28	10.75	11.42	12.28	13.18	14.01	14.99	15.96	17.03
%Change	11.1	11.0	7.6	4.7	6.2	7.6	7.3	6.4	6.9	6.5	6.7
U.S.	749.30	837.80	892.70	940.30	1009.50	1082.90	1157.90	1232.60	1319.90	1408.00	1498.30
%Change	12.4	11.8	6.5	5.3	7.4	7.3	6.9	6.5	7.1	6.7	6.4

Oregon State
Economic and Revenue Forecast

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
CONTRB. FOR SOCIAL INSURANCE											
Oregon	2.60	2.76	2.97	3.25	3.47	3.67	3.89	4.16	4.42	4.69	4.96
%Change	5.9	6.3	7.3	9.5	6.9	5.8	6.0	7.0	6.1	6.1	5.8
U.S.	236.20	248.70	261.30	281.70	300.40	317.10	335.50	356.70	377.00	398.20	421.40
%Change	5.0	5.3	5.1	7.8	6.7	5.5	5.8	6.3	5.7	5.6	5.8
OTHER OREGON PERSONAL INC.											
RESIDENCE ADJUSTMENT	-0.61	-0.63	-0.70	-0.78	-0.86	-0.95	-1.04	-1.17	-1.30	-1.44	-1.58
%Change	-3.7	-3.8	-10.0	-11.7	-10.3	-10.1	-10.5	-12.1	-11.0	-10.7	-9.6
FARM PROPRIETOR'S INC.	0.50	0.50	0.59	0.64	0.67	0.69	0.70	0.72	0.75	0.79	0.83
%Change	-6.0	1.3	16.8	8.5	5.9	2.0	1.4	3.5	4.4	5.2	4.5
(Employment: Oregon in thousands; U.S. in millions)											
TOTAL NONAG EMPLOYMENT											
Oregon	1250.7	1274.1	1308.3	1364.0	1407.2	1431.4	1461.2	1499.2	1534.1	1570.4	1602.4
%Change	-0.1	1.9	2.7	4.3	3.2	1.7	2.1	2.6	2.3	2.4	2.0
U.S.	108.3	108.6	110.5	113.4	116.2	117.8	119.7	121.8	123.7	125.4	127.3
%Change	-1.1	0.3	1.8	2.6	2.5	1.4	1.6	1.7	1.6	1.4	1.5
MANUFACTURING											
Oregon	211.7	209.0	211.7	220.2	222.9	219.9	219.4	220.0	221.5	222.9	224.3
%Change	-4.0	-1.3	1.3	4.0	1.2	-1.3	-0.2	0.3	0.7	0.6	0.6
U.S.	18.4	18.1	18.0	18.1	18.2	17.8	17.6	17.5	17.1	16.9	16.6
%Change	-3.5	-1.6	-0.6	0.3	0.6	-2.3	-0.7	-1.0	-1.8	-1.7	-1.3
DURABLE MANUFACTURES											
Oregon	150.1	146.9	148.7	155.6	157.8	155.2	154.3	154.7	156.1	157.3	158.5
%Change	-5.6	-2.1	1.2	4.6	1.4	-1.6	-0.6	0.2	0.9	0.8	0.7
U.S.	*10.6*	10.3	10.2	10.3	10.4	10.1	10.0	9.9	9.6	9.4	9.2
%Change	-4.8	-2.8	-1.0	0.9	1.3	-2.9	-1.1	-1.2	-2.4	-2.3	-1.8
LUMBER AND WOOD											
Oregon	56.6	54.7	53.5	54.5	52.7	49.5	47.8	46.4	46.6	46.6	46.4
%Change	-11.7	-3.4	-2.3	1.8	-3.3	-6.0	-3.5	-2.8	0.3	0.1	-0.4
U.S.	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6
%Change	-7.9	0.7	3.4	4.0	-0.8	-3.2	-0.1	-2.1	-3.0	-2.0	-1.8

Oregon State
Economic and Revenue Forecast

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
METALS											
Oregon	21.9	21.3	20.8	21.7	22.3	21.7	21.6	21.6	21.7	21.9	22.2
%Change	-2.9	-2.8	-2.6	4.7	2.8	-2.6	-0.4	0.2	0.2	0.9	1.3
U.S.	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9
%Change	-4.5	-2.6	-0.6	2.0	1.9	-2.3	-0.1	-1.2	-2.3	-1.6	-1.2
NONELECTRICAL MACHINERY											
Oregon	17.9	17.1	18.2	19.6	20.7	21.0	21.6	22.5	22.9	23.1	23.3
%Change	0.8	-4.7	6.8	7.5	5.6	1.6	2.7	4.3	1.6	0.9	1.0
U.S.	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9
%Change	-4.5	-3.6	-0.5	1.4	3.3	-1.8	0.2	1.9	-1.8	-2.6	-1.9
ELECTRICAL MACHINERY											
Oregon	17.7	18.5	20.1	22.4	24.7	26.5	27.4	28.5	29.4	30.3	31.4
%Change	1.4	4.1	8.7	11.6	10.4	7.0	3.4	4.1	3.4	3.0	3.5
U.S.	1.6	1.5	1.5	1.6	1.6	1.6	1.5	1.5	1.5	1.4	1.4
%Change	-4.9	-4.0	-0.5	2.0	3.6	-2.2	-3.2	-1.3	-2.7	-3.9	-3.7
TRANSPORTATION EQUIPMENT											
Oregon	12.9	13.3	13.7	14.6	15.1	14.6	14.5	14.6	14.5	14.5	14.3
%Change	-3.6	2.4	3.2	7.1	3.1	-3.1	-0.7	0.4	-0.2	-0.1	-1.3
U.S.	1.9	1.8	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.5	1.4
%Change	-5.0	-3.2	-4.3	-1.3	0.0	-5.8	-2.2	-2.9	-3.1	-2.2	-1.6
INSTRUMENTS											
Oregon	12.0	11.1	10.5	10.4	10.4	10.1	9.6	9.3	9.3	9.3	9.2
%Change	-1.2	-8.0	-4.6	-1.4	-0.3	-2.7	-4.7	-3.1	0.2	-0.4	-0.5
U.S.	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.7
%Change	-3.2	-4.7	-3.9	-4.2	-2.4	-3.9	-3.0	-2.9	-2.4	-2.3	-1.5
OTHER DURABLES											
Oregon	10.9	11.1	12.0	12.4	12.0	11.8	11.9	11.8	11.7	11.7	11.6
%Change	-4.5	1.1	8.6	3.6	-3.9	-1.3	0.9	-1.0	-0.9	0.0	-0.4
U.S.	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3
%Change	-5.3	-0.2	1.2	2.0	-0.1	-2.0	-0.4	-2.0	-1.9	-1.2	-0.7

Oregon State
Economic and Revenue Forecast

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
NONDURABLE MANUFACTURES											
Oregon	61.6	62.1	63.0	64.6	65.1	64.7	65.0	65.3	65.4	65.6	65.9
%Change	0.3	0.8	1.4	2.6	0.8	-0.6	0.5	0.4	0.2	0.2	0.4
U.S.	7.8	7.8	7.8	7.8	7.8	7.7	7.7	7.6	7.5	7.4	7.4
%Change	-1.6	-0.1	0.1	-0.4	-0.3	-1.5	-0.1	-0.7	-1.1	-1.0	-0.6
FOOD AND KINDRED											
Oregon	25.0	25.2	24.8	25.1	25.5	25.7	25.9	26.2	26.4	26.5	26.7
%Change	0.4	0.6	-1.3	1.0	1.6	0.7	1.0	1.0	0.8	0.7	0.6
U.S.	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6
%Change	0.4	-0.3	0.8	-0.5	0.0	-0.8	-0.3	-0.5	-0.7	-0.8	-0.8
PAPER AND ALLIED											
Oregon	9.2	9.1	9.1	9.1	8.9	8.7	8.7	8.6	8.5	8.4	8.4
%Change	-0.1	-1.1	0.8	-0.6	-2.1	-2.3	-0.3	-0.4	-1.1	-1.0	-0.8
U.S.	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6
%Change	-1.3	0.4	-0.1	-0.8	-0.2	-1.9	-0.1	-0.5	-1.3	-1.1	-0.8
PRINTING & PUBLISHING											
Oregon	15.0	14.9	15.3	15.6	15.6	15.4	15.4	15.5	15.4	15.5	15.5
%Change	3.0	-0.7	3.0	2.1	0.1	-1.5	-0.1	0.4	-0.1	0.1	0.1
U.S.	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6
%Change	-2.2	-1.9	0.4	1.0	0.3	-0.5	0.4	0.5	0.3	0.2	0.3
OTHER NONDURABLES											
Oregon	12.5	13.0	13.7	14.8	15.1	15.0	15.1	15.0	15.1	15.1	15.3
%Change	-2.8	4.3	5.3	8.0	1.7	-0.8	0.7	-0.1	0.2	0.4	1.3
U.S.	3.9	3.9	3.9	3.9	3.9	3.8	3.8	3.7	3.7	3.6	3.6
%Change	-2.4	0.6	-0.2	-0.8	-0.7	-2.1	-0.1	-1.2	-1.8	-1.4	-0.9
NONMANUFACTURING											
Oregon	1039.0	1065.1	1096.6	1143.8	1184.3	1211.5	1241.9	1279.2	1312.6	1347.5	1378.1
%Change	0.7	2.5	3.0	4.3	3.5	2.3	2.5	3.0	2.6	2.7	2.3
U.S.	89.9	90.5	92.5	95.3	98.0	100.0	102.1	104.4	106.6	108.6	110.6
%Change	-0.5	0.7	2.2	3.0	2.8	2.1	2.0	2.2	2.1	1.9	1.9

Oregon State
Economic and Revenue Forecast

Table 5

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
CONSTRUCTION											
Oregon	51.4	50.4	54.0	61.8	66.7	67.1	67.0	67.5	68.3	69.2	70.3
%Change	-1.9	-2.0	7.2	14.5	8.0	0.6	-0.2	0.8	1.1	1.3	1.6
U.S.	4.7	4.5	4.6	4.9	5.1	5.2	5.3	5.3	5.3	5.4	5.5
%Change	-9.2	-3.5	3.3	5.9	3.1	1.8	1.9	0.5	0.5	1.6	2.2
MINING											
Oregon	1.6	1.6	1.7	1.5	1.5	1.6	1.7	1.7	1.8	1.8	1.8
%Change	-1.0	4.3	3.0	-9.0	-0.5	4.5	4.9	3.2	2.2	1.6	1.2
U.S.	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
%Change	-2.9	-7.9	-3.8	-0.9	-1.6	-0.8	-1.5	-1.4	-1.5	-0.7	-1.3
TRANS, COMM, & UTILITIES											
Oregon	65.2	65.7	66.8	68.7	70.6	71.6	73.4	75.1	76.5	78.0	79.1
%Change	1.1	0.8	1.6	2.8	2.8	1.5	2.5	2.3	1.9	2.0	1.4
U.S.	5.8	5.7	5.8	5.8	5.9	6.0	6.1	6.1	6.1	6.2	6.2
%Change	-0.5	-0.7	1.2	0.9	1.6	1.0	1.0	0.9	0.5	0.4	0.6
TRANSPORTATION											
Oregon	43.1	43.9	45.4	47.2	48.8	49.6	51.1	52.6	53.8	55.1	56.0
%Change	0.2	1.9	3.4	4.1	3.3	1.7	3.0	2.9	2.4	2.5	1.6
COMMUNICATION & UTILITIES											
Oregon	22.1	21.8	21.4	21.5	21.8	22.0	22.3	22.5	22.7	22.9	23.1
%Change	3.0	-1.5	-1.9	0.2	1.6	0.9	1.4	1.1	0.8	0.8	0.9
TRADE											
Oregon	314.4	318.6	328.8	342.9	353.7	361.3	370.2	380.9	389.0	396.3	403.7
%Change	0.4	1.4	3.2	4.3	3.2	2.1	2.5	2.9	2.1	1.9	1.9
U.S.	25.4	25.4	25.7	26.3	27.1	27.4	27.8	28.5	29.0	29.3	29.8
%Change	-1.6	-0.1	1.3	2.6	2.8	1.2	1.6	2.2	1.8	1.3	1.4
WHOLESALE TRADE											
Oregon	79.2	79.6	80.6	85.0	89.2	91.6	94.0	96.2	98.4	100.6	102.7
%Change	0.5	0.5	1.3	5.4	4.9	2.8	2.6	2.4	2.2	2.3	2.0
RETAIL TRADE											
Oregon	235.2	239.1	248.3	257.9	264.6	269.6	276.2	284.7	290.6	295.7	301.0
%Change	0.4	1.7	3.8	3.9	2.6	1.9	2.4	3.1	2.1	1.8	1.8

March 1995

Oregon State
Economic and Revenue Forecast

Table 5

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
FINANCE, INSUR, & R.E.											
Oregon	83.2	86.0	84.6	88.8	89.1	90.9	93.1	95.3	97.4	99.7	102.6
%Change	3.6	3.4	-1.7	5.0	0.4	2.0	2.5	2.3	2.2	2.4	2.9
U.S.	6.6	6.6	6.7	6.8	6.8	6.9	7.0	7.0	7.1	7.2	7.4
%Change	-0.9	-0.7	1.7	1.1	0.8	1.0	0.7	0.6	1.4	1.8	1.9
SERVICES											
Oregon	296.9	311.7	328.2	345.7	364.2	378.5	393.4	411.2	427.6	444.1	459.7
%Change	0.3	5.0	5.3	5.3	5.4	3.9	3.9	4.5	4.0	3.9	3.5
U.S.	28.3	29.0	30.3	31.8	33.1	34.2	35.5	36.7	37.8	38.9	39.9
%Change	1.4	2.5	4.2	5.0	4.0	3.5	3.6	3.4	3.2	2.9	2.6
HEALTH SERVICES											
Oregon	87.4	89.0	91.6	93.6	96.5	99.3	102.5	105.6	108.1	110.4	112.2
%Change	2.8	1.8	2.9	2.1	3.1	2.9	3.2	3.0	2.4	2.1	1.6
NONHEALTH SERVICES											
Oregon	209.4	222.7	236.6	252.1	267.7	279.1	290.8	305.6	319.4	333.6	347.5
%Change	-0.8	6.3	6.2	6.6	6.2	4.3	4.2	5.1	4.5	4.4	4.1
GOVERNMENT											
Oregon	226.4	231.0	232.6	234.4	238.4	240.5	243.1	247.5	252.1	258.4	260.9
%Change	1.3	2.0	0.7	0.8	1.7	0.9	1.1	1.8	1.9	2.5	1.0
U.S.	18.4	18.6	18.8	19.0	19.4	19.7	19.9	20.3	20.7	21.0	21.3
%Change	0.5	1.3	1.0	1.2	2.0	1.7	1.0	1.6	2.0	1.6	1.5
FED. GOVERNMENT											
Oregon	32.8	33.2	32.5	31.2	30.3	30.2	30.2	30.1	30.2	32.0	30.2
%Change	-3.8	1.3	-2.1	-4.1	-2.8	-0.3	-0.2	-0.1	0.0	6.1	-5.5
U.S.	3.0	3.0	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8
%Change	-3.8	0.1	-1.8	-1.5	-0.9	-1.2	-1.6	-0.3	0.0	-0.1	0.0
STATE & LOCAL GOV.											
Oregon	193.6	197.8	200.0	203.2	208.1	210.3	213.0	217.4	222.0	226.4	230.7
%Change	2.2	2.1	1.1	1.6	2.4	1.0	1.3	2.1	2.1	2.0	1.9
U.S.	15.4	15.7	15.9	16.2	16.6	16.9	17.2	17.5	17.9	18.2	18.6
%Change	1.4	1.5	1.5	1.7	2.5	2.2	1.4	1.9	2.4	1.6	1.7
STATE GOVERNMENT											
Oregon	61.6	61.6	61.5	62.2	63.1	63.0	63.3	64.4	65.6	66.8	67.9
%Change	1.7	0.0	-0.2	1.1	1.5	-0.1	0.5	1.7	1.9	1.8	1.6
LOCAL GOVERNMENT											
Oregon	132.0	136.2	138.5	141.1	145.0	147.3	149.6	153.0	156.3	159.6	162.8
%Change	2.4	3.1	1.7	5-61.8	2.8	1.5	1.6	2.2	2.2	2.1	2.0

Northwest Power Planning Council
Oregon Economic Forecast

Table 6

	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015	AARG (1994-2015)
OREGON POPULATION, HOUSEHOLDS AND INCOME											
Population (in thousands)	3,097.1	3,154.3	3,195.2	3,241.1	3,275.7	3,316.3	3,361.0	3,550.0	3,739.7	3,907.6	1.11%
Households (in thousands)	1,200.0	1,227.4	1,248.1	1,271.0	1,290.1	1,311.3	1,334.3	1,439.0	1,547.3	1,650.8	1.53%
Per Capital Inc., 1980 $	11,125	11,320	11,530	11,751	11,949	12,135	12,335	13,272	13,787	14,009	1.10%
OREGON EMPLOYMENT (in thousands)											
Agriculture (wage & sal.)	57.84	57.67	57.49	57.32	57.15	56.98	56.81	55.96	55.13	54.30	-0.30%
Nonfarm Empl. (wage & sal.)	1,341.66	1,371.24	1,396.33	1,423.87	1,449.65	1,475.15	1,502.68	1,633.84	1,743.69	1,844.77	1.53%
Manufacturing	213.54	213.64	213.84	214.02	214.55	215.09	216.26	220.68	225.33	230.37	0.36%
Food Processing	25.70	25.70	25.70	25.80	25.80	25.80	25.70	25.60	25.60	25.60	-0.02%
Textile	1.60	1.60	1.60	1.60	1.60	1.50	1.50	1.30	1.20	1.10	-1.77%
Apparel	2.70	2.70	2.70	2.70	2.60	2.60	2.50	2.30	2.10	1.90	-1.66%
Lumber & Wood	54.04	52.50	51.24	49.87	48.85	48.24	47.87	46.04	44.06	43.77	-1.00%
Furniture	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.10	3.10	-0.15%
Paper & Pulp	9.03	8.98	8.94	8.90	8.85	8.81	8.76	8.54	8.22	7.89	-0.64%
Printing & Publ.	15.40	15.70	16.00	16.30	16.60	17.00	17.40	19.40	21.40	23.40	2.01%
Chemicals	2.77	2.77	2.76	2.75	2.75	2.74	2.74	2.70	2.66	2.61	-0.28%
Petroleum Prod.	0.60	0.60	0.60	0.70	0.70	0.70	0.70	0.70	0.80	0.80	1.38%
Rubber & Plastic	5.30	5.50	5.70	5.80	6.00	6.10	6.20	7.00	7.90	8.50	2.27%
Leather Goods	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.50	0.50	0.60	1.95%
Stone, Clay & Glass	3.90	4.00	4.10	4.10	4.20	4.30	4.40	4.70	4.80	4.90	1.09%
Primary Metals	9.70	9.70	9.80	9.90	9.90	9.90	10.10	10.30	10.50	10.50	0.38%
Fabricated Metals	11.00	11.10	11.20	11.40	11.50	11.70	11.80	12.40	13.00	13.50	0.98%
Industrial Machines	19.10	19.50	19.80	20.10	20.40	20.60	20.90	22.00	23.00	23.60	1.01%
Electrical Machinery	20.90	21.40	21.80	22.20	22.60	23.00	23.40	25.00	27.00	28.60	1.50%
Transport. Equipment	13.90	14.00	14.10	14.20	14.50	14.60	14.70	15.00	15.20	15.30	0.46%
Instruments	10.30	10.30	10.20	10.10	10.00	9.90	9.90	9.80	9.70	9.60	-0.33%
Misc. Manufactures	4.00	4.00	4.00	4.00	4.10	4.00	4.10	4.20	4.60	5.10	1.16%
Nonmanufacturing	1,128.12	1,157.60	1,182.49	1,209.85	1,235.10	1,260.06	1,286.42	1,413.16	1,518.35	1,614.40	1.72%
Mining	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	0.00%
Construction	57.30	62.50	63.30	64.00	64.30	65.30	67.00	70.00	72.00	74.00	1.23%
Transp., Comm., Util.	67.10	67.70	68.60	69.50	70.60	71.50	72.30	77.40	81.10	84.90	1.13%
Wholesale Trade	81.80	83.00	84.40	86.10	87.50	89.30	91.20	97.80	102.60	107.80	1.32%
Retail Trade	254.30	261.29	267.10	273.55	279.95	285.87	292.04	326.35	356.70	378.44	1.91%
Fin., Ins., Real Estate	93.30	95.30	96.20	97.80	98.90	100.10	102.20	110.00	117.00	124.00	1.36%
Services	337.52	349.33	360.95	373.31	385.15	396.68	407.76	463.38	507.75	550.18	2.35%
State & Local Gov.	203.00	204.78	208.34	212.09	215.20	217.81	220.32	233.73	245.90	259.08	1.17%
Civilian Fed. Gov.	32.30	32.20	32.10	32.00	32.00	32.00	32.10	33.00	33.80	34.50	0.31%

Composition of Gross Domestic Product

Billions of Current Dollars (1987$)

	1990	1991	1992	1993	1994	1995	1996	1997
					< History Forecast >			
Gross Domestic Product	4,897.3	4,867.6	4,979.3	5,134.5	5,344.7	5,501.3	5,639.8	5,769.5
% change	1.22	-0.60	2.29	3.12	4.09	2.93	2.52	2.30
High	4,897.3	4,867.6	4,979.3	5,134.5	5,344.7	5,519.4	5,681.7	5,836.1
% change	1.22	-0.60	2.29	3.12	4.09	3.27	2.94	2.72
Low	4,897.3	4,867.6	4,979.3	5,134.5	5,344.7	5,484.2	5,597.2	5,700.6
% change	1.22	-0.60	2.29	3.12	4.09	2.61	2.06	1.85
Consumption Spending	3,272.6	3,259.3	3,349.4	3,458.7	3,578.5	3,697.7	3,779.3	3,843.8
% change	1.53	-0.40	2.77	3.26	3.46	3.33	2.20	1.71
High	3,272.6	3,259.3	3,349.4	3,458.7	3,578.5	3,706.4	3,800.0	3,878.6
% change	1.53	-0.40	2.77	3.26	3.46	3.58	2.53	2.07
Low	3,272.6	3,259.3	3,349.4	3,458.7	3,578.5	3,687.4	3,756.1	3,804.7
% change	1.53	-0.40	2.77	3.26	3.46	3.04	1.86	1.29
Consumption-Durable	443.0	425.4	452.6	489.9	529.5	559.8	573.6	584.8
% change	0.53	-3.99	6.41	8.24	8.07	5.73	2.47	1.95
High	443.0	425.4	452.6	489.9	529.5	562.6	579.3	595.1
% change	0.53	-3.99	6.41	8.24	8.07	6.25	2.97	2.73
Low	443.0	425.4	452.6	489.9	529.5	557.1	567.3	574.0
% change	0.53	-3.99	6.41	8.24	8.07	5.21	1.84	1.18
Consumption-Nondur.	1,768.8	1,786.3	1,839.1	1,890.3	1,939.8	1,999.3	2,045.8	2,083.3
% change	2.19	0.99	2.96	2.78	2.62	3.07	2.33	1.83
High	1,768.8	1,786.3	1,839.1	1,890.3	1,939.8	2,002.4	2,054.7	2,097.4
% change	2.19	0.99	2.96	2.78	2.62	3.23	2.61	2.08
Low	1,768.8	1,786.3	1,839.1	1,890.3	1,939.8	1,995.2	2,035.9	2,066.7
% change	2.19	0.99	2.96	2.78	2.62	2.86	2.04	1.51
Gross Dom. Pri. Investment	746.8	683.8	725.3	819.9	955.0	1,010.8	1,051.3	1,082.6
% change	-4.75	-8.43	6.06	13.05	16.47	5.84	4.01	2.98
High	746.8	683.8	725.3	819.9	955.0	1,020.8	1,076.0	1,121.0
% change	-4.75	-8.43	6.06	13.05	16.47	6.89	5.41	4.18
Low	746.8	683.8	725.3	819.9	955.0	1,002.2	1,027.7	1,045.9
% change	-4.75	-8.43	6.06	13.05	16.47	4.95	2.54	1.77
Residential Investment	194.5	169.5	196.9	213.1	230.9	226.6	225.0	230.5
% change	-9.19	-12.86	16.19	8.17	8.37	-1.86	-0.70	2.48
High	194.5	169.5	196.9	213.1	230.9	228.7	231.8	242.3
% change	-9.19	-12.86	16.19	8.17	8.37	-0.96	1.35	4.55
Low	194.5	169.5	196.9	213.1	230.9	225.5	218.6	220.0
% change	-9.19	-12.86	16.19	8.17	8.37	-2.31	-3.08	0.62
Nonresidential Struct.	179.5	160.6	149.8	147.7	150.3	160.0	164.5	163.7
% change	1.11	-10.57	-6.73	-1.40	1.79	6.43	2.85	-0.52
High	179.5	160.6	149.8	147.7	150.3	161.6	168.0	168.9
% change	1.11	-10.57	-6.73	-1.40	1.79	7.50	3.93	0.58
Low	179.5	160.6	149.8	147.7	150.3	157.4	159.6	156.6
% change								

Table 7

Composition of Gross Domestic Product

Billions of Current Dollars (1987$)

	1998	1999	2000	2005	2010	2015	2020	(1994-2020) AARG
Gross Domestic Product	5,894.8	6,033.7	6,182.1	7,005.9	7,846.3	8,736.1	9,706.2	2.3%
% change	2.17	2.36	2.46	2.53	2.29	2.17	2.13	
High	5,987.5	6,152.2	6,316.5	7,300.7	8,354.8	9,506.0	10,807.7	2.7%
% change	2.59	2.75	2.67	2.94	2.73	2.62	2.60	
Low	5,790.9	5,902.4	6,010.7	6,632.1	7,212.4	7,780.1	8,389.2	1.7%
% change	1.58	1.93	1.83	1.99	1.69	1.53	1.52	
Consumption Spending	3,901.4	3,964.2	4,034.1	4,446.2	4,896.9	5,416.5	6,019.7	2.0%
% change	1.50	1.61	1.76	1.96	1.95	2.04	2.13	
High	3,956.9	4,038.2	4,123.1	4,621.8	5,178.9	5,832.4	6,600.1	2.4%
% change	2.02	2.05	2.10	2.31	2.30	2.41	2.50	
Low	3,846.6	3,899.5	3,950.9	4,260.9	4,600.3	4,991.2	5,454.5	1.6%
% change	1.10	1.37	1.32	1.52	1.54	1.64	1.79	
Consumption-Durable	589.8	595.2	602.5	651.0	717.4	797.0	888.5	2.0%
% change	0.86	0.92	1.21	1.56	1.96	2.13	2.20	
High	607.7	617.8	626.8	691.8	787.0	903.9	1,042.4	2.6%
% change	2.11	1.66	1.47	1.99	2.61	2.81	2.89	
Low	576.7	580.2	582.0	601.5	639.3	686.5	745.3	1.3%
% change	0.48	0.60	0.31	0.66	1.23	1.44	1.66	
Consumption-Nondur.	2,121.5	2,163.2	2,209.0	2,474.3	2,759.1	3,087.8	3,472.4	2.3%
% change	1.83	1.97	2.11	2.29	2.20	2.28	2.38	
High	2,143.9	2,194.8	2,249.6	2,560.3	2,893.4	3,282.9	3,741.4	2.6%
% change	2.22	2.38	2.50	2.62	2.48	2.56	2.65	
Low	2,096.7	2,133.3	2,172.7	2,392.5	2,622.9	2,888.3	3,202.4	1.9%
% change	1.45	1.74	1.85	1.95	1.86	1.95	2.09	
Gross Dom. Pri. Investment	1,111.1	1,141.1	1,174.0	1,387.1	1,625.8	1,906.3	2,251.7	3.4%
% change	2.64	2.69	2.88	3.39	3.23	3.24	3.39	
High	1,154.1	1,192.0	1,228.9	1,499.6	1,833.5	2,239.0	2,753.4	4.2%
% change	2.95	3.29	3.09	4.06	4.10	4.08	4.22	
Low	1,049.4	1,061.7	1,076.5	1,209.1	1,352.7	1,513.8	1,709.5	2.3%
% change	0.33	1.18	1.39	2.35	2.27	2.28	2.46	
Residential Investment	233.5	235.0	238.7	267.1	289.2	308.9	329.0	1.4%
% change	1.30	0.65	1.55	2.27	1.60	1.33	1.27	
High	254.2	259.4	262.3	303.2	339.8	374.5	409.2	2.2%
% change	4.92	2.02	1.12	2.94	2.31	1.97	1.78	
Low	219.6	218.3	217.4	238.7	251.7	264.7	281.7	0.8%
% change	-0.17	-0.59	-0.40	1.89	1.06	1.01	1.25	
Nonresidential Struct.	163.9	167.1	170.8	192.3	211.9	234.6	263.7	2.2%
% change	0.14	1.93	2.21	2.41	1.96	2.06	2.36	
High	170.9	177.1	185.3	215.8	249.7	291.5	345.2	3.2%
% change	1.15	3.65	4.60	3.10	2.96	3.14	3.44	
Low	154.6	156.5	160.4	164.4	165.4	167.7	172.5	0.5%
% change								

Source: WEFA, Long-Term U.S. Economic Outlook, Fourth Quarter 1994, Vol. 1 and 2.

Table 7

Composition of Gross Domestic Product

Billions of Current Dollars (1987$)

	1990	1991	1992	1993	1994	1995	1996	1997
					< History	Forecast >		
Info. Processing Equip.	133.1	138.8	156.8	200.9	246.7	283.0	312.7	331.6
% change	3.94	4.32	12.95	28.12	22.81	14.70	10.51	6.04
High	133.1	138.8	156.8	200.9	246.7	286.3	319.4	341.8
% change	3.94	4.32	12.95	28.12	22.81	16.04	11.56	7.02
Low	133.1	138.8	156.8	200.9	246.7	281.3	308.0	323.2
% change	3.94	4.32	12.95	28.12	22.81	14.01	9.48	4.96
Other Nonres. Equip.	239.6	214.9	221.8	258.3	327.1	341.2	349.1	356.7
% change	-9.29	-10.30	3.18	16.47	26.62	4.34	2.29	2.20
High	239.6	214.9	221.8	258.3	327.1	344.2	356.9	367.9
% change	-9.29	-10.30	3.18	16.47	26.62	5.25	3.68	3.09
Low	239.6	214.9	221.8	258.3	327.1	338.0	341.5	346.1
% change	-9.29	-10.30	3.18	16.47	26.62	3.35	1.03	1.34
Change in Bus. Inventory	5.7	-1.1	2.4	15.3	53.6	33.4	19.2	15.1
High	5.7	-1.1	2.4	15.3	53.6	34.6	22.8	19.5
Low	5.7	-1.1	2.4	15.3	53.6	32.2	15.7	10.6
Exports	510.5	542.6	578.8	602.5	651.9	713.5	783.5	859.8
% change	8.20	6.29	6.68	4.09	8.21	9.44	9.80	9.74
High	510.5	542.6	578.8	602.5	651.9	717.1	789.9	869.2
% change	8.20	6.29	6.68	4.09	8.21	9.99	10.16	10.04
Low	510.5	542.6	578.8	602.5	651.9	712.6	780.5	854.2
% change	8.20	6.29	6.68	4.09	8.21	9.31	9.53	9.43
Imports	565.1	562.1	611.2	676.3	766.4	843.4	893.4	937.7
% change	3.61	-0.54	8.73	10.67	13.31	10.05	5.94	4.95
High	565.1	562.1	611.2	676.3	766.4	849.5	907.4	959.9
% change	3.61	-0.54	8.73	10.67	13.31	10.85	6.81	5.79
Low	565.1	562.1	611.2	676.3	766.4	838.7	881.8	918.2
% change	3.61	-0.54	8.73	10.67	13.31	9.44	5.14	4.13
Gov. Purchases	932.6	944.0	936.9	929.8	925.6	922.7	919.1	921.0
% change	3.11	1.22	-0.75	-0.76	-0.44	-0.32	-0.38	0.20
High	932.6	944.0	936.9	929.8	925.6	924.6	923.2	927.2
% change	3.11	1.22	-0.75	-0.76	-0.44	-0.11	-0.16	0.44
Low	932.6	944.0	936.9	929.8	925.6	920.7	914.7	914.0
% change	3.11	1.22	-0.75	-0.76	-0.44	-0.54	-0.65	-0.08

Source: WEFA, Long-Term U.S. Economic Outlook, Fourth Quarter 1994, Vol. 1 and 2.

Table 7

Composition of Gross Domestic Product

Billions of Current Dollars (1987$)

	1998	1999	2000	2005	2010	2015	2020	(1994-2020) AARG
Info. Processing Equip.	349.3	369.8	389.9	512.8	655.0	827.0	1,048.8	5.7%
% change	5.34	5.87	5.42	5.63	5.02	4.78	4.87	
High	364.8	393.6	423.4	570.0	760.3	1,001.7	1,324.9	6.7%
% change	6.73	7.89	7.57	6.13	5.93	5.67	5.75	
Low	337.8	356.5	376.4	460.6	556.9	663.4	792.8	4.6%
% change	4.51	5.52	5.58	4.12	3.87	3.56	3.63	
Other Nonres. Equip.	364.4	369.1	374.6	414.9	469.7	535.7	610.2	2.4%
% change	2.14	1.30	1.49	2.06	2.51	2.67	2.64	
High	364.1	361.9	358.0	410.6	483.7	571.3	674.1	2.8%
% change	-1.02	-0.61	-1.09	2.78	3.33	3.38	3.37	
Low	337.5	330.5	322.3	345.4	378.7	418.0	462.4	1.3%
% change	-2.49	-2.05	-2.48	1.39	1.85	2.00	2.04	
Change in Bus. Inventory	18.1	18.9	19.4	20.8	21.0	24.0	26.4	N.M.
High	14.4	15.6	14.7	25.4	27.3	32.0	38.1	N.M.
Low	5.0	5.8	5.3	11.7	9.9	11.3	12.2	N.M.
Exports	928.3	992.5	1,056.0	1,390.0	1,772.7	2,207.5	2,735.1	5.7%
% change	7.96	6.92	6.40	5.65	4.98	4.48	4.38	
High	933.7	986.8	1,037.6	1,412.5	1,869.6	2,408.9	3,095.4	6.2%
% change	7.41	5.70	5.14	6.36	5.77	5.20	5.14	
Low	911.3	955.5	994.9	1,266.6	1,550.8	1,835.2	2,158.2	4.7%
% change	6.69	4.86	4.12	4.95	4.13	3.43	3.30	
Imports	973.4	1,006.0	1,042.8	1,286.1	1,629.4	2,088.3	2,717.2	5.0%
% change	3.81	3.35	3.66	4.28	4.85	5.09	5.41	
High	996.6	1,024.7	1,054.5	1,337.3	1,760.4	2,340.4	3,152.7	5.6%
% change	3.82	2.82	2.91	4.87	5.65	5.86	6.14	
Low	938.1	951.3	964.8	1,148.8	1,426.3	1,783.1	2,250.9	4.2%
% change	2.17	1.41	1.42	3.55	4.42	4.57	4.77	
Gov. Purchases	927.4	941.9	960.7	1,068.7	1,180.4	1,294.1	1,412.2	1.6%
% change	0.69	1.56	2.00	2.15	2.01	1.86	1.76	
High	939.4	959.8	981.4	1,104.1	1,233.2	1,366.2	1,507.1	1.9%
% change	1.31	2.17	2.25	2.38	2.23	2.07	1.98	
Low	921.6	936.9	953.1	1,044.2	1,135.0	1,223.1	1,311.5	1.3%
% change	0.84	1.66	1.73	1.84	1.68	1.51	1.41	

Table 8

Key U.S. Economic Growth Indicators

Billions of Current Dollars (1987$)

	1990	1991	1992	1993	1994	1995	1996	1997
					< History	Forecast >		
Gross National Product	4,916.5	4,882.3	4,985.7	5,140.3	5,340.8	5,495.3	5,632.8	5,764.0
% change	1.32	-0.70	2.12	3.10	3.90	2.89	2.50	2.33
High	4,916.5	4,882.3	4,985.7	5,140.3	5,340.8	5,513.3	5,674.7	5,830.5
% change	1.32	-0.70	2.12	3.10	3.90	3.23	2.93	2.75
Low	4,916.5	4,882.3	4,985.7	5,140.3	5,340.8	5,478.2	5,590.3	5,695.3
% change	1.32	-0.70	2.12	3.10	3.90	2.57	2.05	1.88
GDP Implicit Price Deflator	113.3	117.6	120.9	123.5	126.1	129.8	133.6	137.5
% change	4.33	3.84	2.81	2.17	2.09	2.92	2.96	2.87
High	113.3	117.6	120.9	123.5	126.1	129.6	133.2	136.7
% change	4.33	3.84	2.81	2.17	2.09	2.77	2.76	2.67
Low	113.3	117.6	120.9	123.5	126.1	129.9	133.9	138.1
% change	4.33	3.84	2.81	2.17	2.09	2.98	3.15	3.13
CPI (1982-84=100)	130.7	136.3	140.4	144.6	148.3	152.6	157.3	162.3
% change	5.42	4.24	3.02	2.96	2.62	2.89	3.09	3.16
High	130.7	136.3	140.4	144.6	148.3	152.3	156.6	161.1
% change	5.42	4.24	3.02	2.96	2.62	2.65	2.83	2.88
Low	130.7	136.3	140.4	144.6	148.3	152.8	157.8	163.3
% change	5.42	4.24	3.02	2.96	2.62	3.00	3.29	3.44
Personal Income	40.7	40.6	41.7	42.5	44.0	45.1	46.0	47.0
% change	1.45	-0.18	2.83	1.71	3.65	2.48	1.98	2.08
High	40.7	40.6	41.7	42.5	44.0	45.3	46.4	47.6
% change	1.45	-0.18	2.83	1.71	3.65	2.84	2.45	2.60
Low	40.7	40.6	41.7	42.5	44.0	44.9	45.6	46.2
% change	1.45	-0.18	2.83	1.71	3.65	2.01	1.47	1.45
Federal Deficit (w. Soc. Sec.)	-163.6	-202.8	-282.7	-241.3	-163.0	-153.6	-146.8	-141.5
difference	-41.3	-39.3	-79.8	41.3	78.4	9.4	6.8	5.3
High	-163.6	-202.8	-282.7	-241.3	-163.0	-152.5	-146.2	-139.6
difference	-41.3	-39.3	-79.8	41.3	78.4	10.5	6.3	6.6
Low	-163.6	-202.8	-282.7	-241.3	-163.0	-163.3	-171.3	-174.1
difference	-41.3	-39.3	-79.8	41.3	78.4	-0.3	-8.0	-2.9
Housing Starts (millions)	1.203	1.009	1.203	1.293	1.429	1.349	1.329	1.393
difference	-0.179	-0.194	0.194	0.090	0.136	-0.080	-0.020	0.065
High	1.203	1.009	1.203	1.293	1.429	1.394	1.423	1.537
difference	-0.179	-0.194	0.194	0.090	0.136	-0.035	0.029	0.113
Low	1.203	1.009	1.203	1.293	1.429	1.305	1.234	1.255
difference	-0.179	-0.194	0.194	0.090	0.136	-0.124	-0.071	0.021
Housing Starts, single-family	0.901	0.835	1.032	1.132	1.184	1.075	1.053	1.096
difference	-0.105	-0.066	0.197	0.099	0.053	-0.110	-0.021	0.043
High	0.901	0.835	1.032	1.132	1.184	1.099	1.109	1.180
difference	-0.105	-0.066	0.197	0.099	0.053	-0.086	0.010	0.071
Low	0.901	0.835	1.032	1.132	1.184	1.052	0.998	1.016
difference	-0.105	-0.066	0.197	0.099	0.053	-0.133	-0.054	0.019

Table 8

Key U.S. Economic Growth Indicators

Billions of Current Dollars (1987$)

	1998	1999	2000	2005	2010	2015	2020	(1994-2020) AARG
Gross National Product	5,891.1	6,029.0	6,172.6	6,980.1	7,821.6	8,721.2	9,695.0	2.3%
% change	2.21	2.34	2.38	2.49	2.30	2.20	2.14	
High	5,984.7	6,148.1	6,306.4	7,274.2	8,328.2	9,487.8	10,793.5	2.7%
% change	2.64	2.73	2.58	2.90	2.74	2.64	2.61	
Low	5,788.7	5,899.5	6,002.7	6,611.9	7,194.9	7,771.6	8,384.1	1.7%
% change	1.64	1.91	1.75	1.95	1.70	1.55	1.53	
GDP Implicit Price Deflator	141.4	145.9	150.7	175.9	207.3	243.6	287.2	3.2%
% change	2.85	3.20	3.30	3.14	3.33	3.28	3.34	
High	140.6	145.2	150.4	173.3	199.9	228.9	261.3	2.8%
% change	2.80	3.32	3.56	2.87	2.90	2.75	2.68	
Low	142.7	148.3	154.6	185.1	224.3	273.2	335.2	3.8%
% change	3.30	3.92	4.26	3.66	3.92	4.02	4.18	
CPI (1982-84=100)	167.7	173.6	179.8	213.0	254.1	302.5	359.1	3.5%
% change	3.34	3.52	3.57	3.44	3.60	3.55	3.49	
High	166.5	172.6	179.0	209.0	243.9	283.1	326.3	3.1%
% change	3.35	3.67	3.72	3.14	3.14	3.03	2.88	
Low	169.7	176.9	184.8	223.8	272.6	332.3	404.8	3.9%
% change	3.93	4.29	4.41	3.91	4.03	4.04	4.02	
Personal Income	47.8	48.7	49.8	55.9	61.9	69.0	77.0	2.2%
% change	1.88	1.85	2.15	2.37	2.05	2.19	2.24	
High	48.8	50.1	51.5	59.4	67.2	76.5	87.1	2.7%
% change	2.62	2.66	2.85	2.86	2.51	2.62	2.65	
Low	46.9	47.6	48.5	53.3	57.6	62.3	67.6	1.7%
% change	1.48	1.51	1.81	1.92	1.57	1.58	1.62	
Federal Deficit (w. Soc. Sec.)	-123.4	-103.3	-83.6	-11.9	70.4	132.1	117.0	N.M.
difference	18.1	20.1	19.7	71.7	82.2	61.8	-15.1	
High	-114.2	-91.1	-67.3	32.1	156.0	283.3	376.8	N.M.
difference	25.4	23.0	23.8	99.5	123.9	127.3	93.4	
Low	-149.8	-122.3	-115.6	-89.5	-74.1	-118.8	-237.6	N.M.
difference	24.4	27.5	6.7	26.1	15.4	-44.7	-118.8	
Housing Starts (millions)	1.402	1.410	1.444	1.549	1.589	1.619	1.648	0.5%
difference	0.009	0.008	0.034	0.105	0.041	0.029	0.029	
High	1.622	1.638	1.670	1.829	1.945	2.028	2.077	1.4%
difference	0.086	0.016	0.032	0.158	0.116	0.083	0.049	
Low	1.212	1.222	1.229	1.331	1.367	1.383	1.423	0.0%
difference	-0.043	0.009	0.008	0.102	0.036	0.016	0.041	
Housing Starts, single-family	1.094	1.098	1.120	1.192	1.221	1.239	1.256	0.2%
difference	-0.002	0.004	0.022	0.072	0.030	0.018	0.017	
High	1.240	1.256	1.278	1.411	1.507	1.561	1.577	1.1%
difference	0.061	0.016	0.022	0.132	0.097	0.054	0.016	
Low	0.982	0.979	0.977	1.046	1.070	1.104	1.184	0.0%
difference	-0.035	-0.003	-0.002	0.069	0.024	0.034	0.080	

Source: WEFA Long-Term U.S. Economic Outlook, 1994 Fourth Quarter, Vol. 1 and 2

Metro Data Resource Center
US.XLS KeyVars

Table 8

Key U.S. Economic Growth Indicators

Billions of Current Dollars (1987$)

	1990	1991	1992	1993	1994	1995	1996	1997
					< History	Forecast >		
Housing Starts, multi-family	0.303	0.174	0.170	0.161	0.245	0.274	0.276	0.297
difference	-0.073	-0.129	-0.004	-0.009	0.083	0.029	0.001	0.022
High	0.303	0.174	0.170	0.161	0.245	0.296	0.315	0.357
difference	-0.073	-0.129	-0.004	-0.009	0.083	0.051	0.019	0.042
Low	0.303	0.174	0.170	0.161	0.245	0.254	0.237	0.239
difference	-0.073	-0.129	-0.004	-0.009	0.083	0.009	-0.017	0.002
Interest Rate (3 mo. T. Bill)	7.5	5.4	3.4	3.0	4.2	6.4	6.4	6.2
High	7.5	5.4	3.4	3.0	4.2	6.1	6.2	5.9
Low	7.5	5.4	3.4	3.0	4.2	6.8	6.6	6.4
Interest Rate (30 yr. T. Bond)	8.6	8.1	7.7	6.6	7.4	8.3	8.2	7.9
High	8.6	8.1	7.7	6.6	7.4	8.0	8.1	7.7
Low	8.6	8.1	7.7	6.6	7.4	8.6	8.4	8.1
Effective Mortgage Rate	10.0	9.3	8.1	7.2	7.5	8.2	8.4	8.5
High	10.0	9.3	8.1	7.2	7.5	7.9	8.3	8.3
Low	10.0	9.3	8.1	7.2	7.5	8.5	8.6	8.8
Exchange Rate (1987$)	100.0	101.2	101.1	104.4	102.1	102.0	103.5	101.1
% change	-2.03	1.20	-0.12	3.27	-2.15	-0.13	1.50	-2.39
High	100.0	101.2	101.1	104.4	102.1	102.1	103.6	101.0
% change	-2.03	1.20	-0.12	3.27	-2.15	0.01	1.43	-2.51
Low	100.0	101.2	101.1	104.4	102.1	101.9	103.6	101.3
% change	-2.03	1.20	-0.12	3.27	-2.15	-0.22	1.62	-2.20
Crude Petroleum ($/bbl)	22.3	19.1	18.4	16.4	15.5	16.7	17.2	18.4
% change	24.37	-14.59	-3.61	-10.72	-5.57	7.65	3.28	6.53
High	22.3	19.1	18.4	16.4	15.5	16.3	16.3	16.8
% change	24.37	-14.59	-3.61	-10.72	-5.57	5.15	-0.02	2.76
Low	22.3	19.1	18.4	16.4	15.5	17.2	18.3	20.1
% change	24.37	-14.59	-3.61	-10.72	-5.57	10.68	6.54	9.76
Global GDP Index (1987=100)	111.4	112.5	113.5	114.0	117.4	120.9	125.2	129.5
% change	2.56	1.01	0.87	0.48	2.99	2.99	3.50	3.44
High	111.4	112.5	113.5	114.0	117.4	121.3	125.9	130.6
% change	2.56	1.01	0.87	0.48	2.99	3.29	3.80	3.73
Low	111.4	112.5	113.5	114.0	117.4	120.6	124.5	128.4
% change	2.56	1.01	0.87	0.48	2.99	2.69	3.21	3.14
Global Price Index (1987=100)	126.5	127.4	128.7	130.2	132.6	136.0	140.2	144.5
% change	1.06	0.70	0.99	1.17	1.86	2.52	3.13	3.04
High	126.5	127.4	128.7	130.2	132.6	135.5	139.2	142.9
% change	1.06	0.70	0.99	1.17	1.86	2.15	2.74	2.66
Low	126.5	127.4	128.7	130.2	132.6	136.4	141.2	146.1
% change	1.06	0.70	0.99	1.17	1.86	2.89	3.52	3.41

Table 8

Key U.S. Economic Growth Indicators

Billions of Current Dollars (1987$)

	1998	1999	2000	2005	2010	2015	2020	(1994-2020) AARG
Housing Starts, multi-family	0.308	0.313	0.324	0.357	0.368	0.380	0.391	1.8%
difference	0.010	0.005	0.012	0.033	0.011	0.012	0.012	
High	0.382	0.382	0.392	0.418	0.437	0.467	0.500	2.8%
difference	0.025	0.000	0.010	0.026	0.019	0.029	0.033	
Low	0.231	0.243	0.252	0.285	0.297	0.279	0.242	0.0%
difference	-0.008	0.012	0.010	0.033	0.012	-0.018	-0.037	
Interest Rate (3 mo. T. Bill)	6.1	6.0	5.8	5.5	5.2	4.8	4.5	N.M.
High	5.4	5.4	5.8	5.7	5.1	4.5	4.1	N.M.
Low	6.0	6.0	6.5	6.5	6.0	5.6	5.3	N.M.
Interest Rate (30 yr. T. Bond)	7.6	7.5	7.4	7.1	7.0	6.5	6.1	N.M.
High	7.4	7.3	7.2	7.1	6.7	6.3	5.9	N.M.
Low	7.9	7.8	7.9	7.8	7.5	7.2	6.8	N.M.
Effective Mortgage Rate	8.6	8.6	8.5	8.4	8.3	7.9	7.4	N.M.
High	8.3	8.4	8.4	8.4	8.0	7.6	7.3	N.M.
Low	8.8	8.9	9.0	9.2	8.8	8.5	8.1	N.M.
Exchange Rate (1987$)	98.5	96.0	94.0	88.7	90.5	95.6	101.5	0.0%
% change	-2.52	-2.55	-2.09	-1.15	0.40	1.11	1.20	
High	98.7	94.8	91.4	79.5	79.6	82.8	85.6	-0.7%
% change	-2.25	-3.95	-3.61	-2.76	0.04	0.78	0.67	
Low	99.4	95.8	92.8	83.3	87.2	95.2	103.6	0.1%
% change	-1.89	-3.55	-3.14	-2.14	0.92	1.78	1.70	
Crude Petroleum ($/bbl)	20.0	21.4	22.8	28.7	35.2	42.6	51.7	4.7%
% change	8.75	7.21	6.49	4.69	4.21	3.87	3.93	
High	17.9	18.5	19.1	20.5	20.9	20.0	18.1	0.6%
% change	6.60	3.64	3.20	1.46	0.39	-0.87	-2.02	
Low	22.7	24.9	27.2	39.3	54.3	73.6	100.6	7.5%
% change	13.21	9.73	9.01	7.64	6.70	6.26	6.45	
Global GDP Index (1987=100)	133.8	137.9	142.1	163.7	187.1	212.4	240.1	2.8%
% change	3.34	3.05	3.03	2.87	2.72	2.57	2.48	
High	135.2	139.5	143.8	168.8	196.0	225.7	259.1	3.1%
% change	3.54	3.17	3.06	3.27	3.03	2.86	2.80	
Low	132.2	135.6	138.9	158.4	178.6	199.8	222.2	2.5%
% change	2.95	2.56	2.45	2.67	2.43	2.27	2.15	
Global Price Index (1987=100)	148.9	153.7	158.6	185.6	217.3	254.3	297.7	3.2%
% change	3.10	3.16	3.20	3.20	3.20	3.20	3.20	
High	146.9	151.2	155.7	179.1	205.8	236.5	273.9	2.8%
% change	2.82	2.94	2.97	2.84	2.82	2.82	2.98	
Low	151.3	156.9	162.7	194.2	231.5	276.1	329.3	3.6%
% change	3.58	3.70	3.72	3.60	3.58	3.58	3.59	

* Average annual rate of growth between 1994 and 2020.

Source: WEFA Long-Term U.S. Economic Outlook, 1994 Fourth Quarter, Vol. 1 and 2

Table 9

U.S. Wage and Salary Employment Scenarios

(In Millions)

	1990	1991	1992	1993	1994	1995	1996	1997
					< History Forecast >			
Nonfarm Employment	109.37	108.21	108.55	110.48	113.33	116.21	118.23	120.32
% change	1.42	-1.06	0.31	1.78	2.58	2.54	1.75	1.77
High	109.37	108.21	108.55	110.48	113.33	116.74	119.20	121.85
% change	1.42	-1.06	0.31	1.78	2.58	3.01	2.11	2.22
Low	109.37	108.21	108.55	110.48	113.33	115.80	117.58	119.37
% change	1.42	-1.06	0.31	1.78	2.58	2.18	1.54	1.52
Manufacturing	19.03	18.36	18.06	17.96	18.02	18.15	18.01	17.82
% change	-1.62	-3.51	-1.64	-0.53	0.31	0.74	-0.78	-1.03
High	19.03	18.36	18.06	17.96	18.02	18.29	18.26	18.19
% change	-1.62	-3.51	-1.64	-0.53	0.31	1.52	-0.15	-0.43
Low	19.03	18.36	18.06	17.96	18.02	18.02	17.76	17.46
% change	-1.62	-3.51	-1.64	-0.53	0.31	-0.01	-1.43	-1.65
Durable	11.11	10.57	10.28	10.17	10.26	10.38	10.29	10.16
% change	-2.50	-4.84	-2.78	-1.02	0.88	1.15	-0.86	-1.31
High	11.11	10.57	10.28	10.17	10.26	10.48	10.47	10.41
% change	-2.50	-4.84	-2.78	-1.02	0.88	2.08	-0.07	-0.56
Low	11.11	10.57	10.28	10.17	10.26	10.30	10.13	9.91
% change	-2.50	-4.84	-2.78	-1.02	0.88	0.33	-1.66	-2.09
Lumber & Wood Prod.	0.73	0.68	0.68	0.70	0.73	0.73	0.72	0.71
% change	-3.04	-7.91	0.65	3.41	4.02	0.05	-1.96	-0.79
High	0.73	0.68	0.68	0.70	0.73	0.74	0.73	0.74
% change	-3.04	-7.91	0.65	3.41	4.02	0.89	-0.61	0.57
Low	0.73	0.68	0.68	0.70	0.73	0.73	0.70	0.69
% change	-3.04	-7.91	0.65	3.41	4.02	-0.79	-3.50	-2.17
Furniture and Fixtures	0.51	0.47	0.48	0.49	0.50	0.50	0.50	0.49
% change	-3.57	-6.11	0.58	1.59	2.23	1.02	-0.86	-1.05
High	0.51	0.47	0.48	0.49	0.50	0.51	0.51	0.51
% change	-3.57	-6.11	0.58	1.59	2.23	1.93	0.00	-0.09
Low	0.51	0.47	0.48	0.49	0.50	0.50	0.49	0.48
% change	-3.57	-6.11	0.58	1.59	2.23	0.05	-1.79	-2.05
Stone, Clay and Glass	0.56	0.52	0.51	0.52	0.53	0.53	0.53	0.53
% change	-2.11	-6.26	-1.57	0.47	2.58	0.61	-0.47	-0.82
High	0.56	0.52	0.51	0.52	0.53	0.54	0.54	0.54
% change	-2.11	-6.26	-1.57	0.47	2.58	1.47	0.47	0.06
Low	0.56	0.52	0.51	0.52	0.53	0.53	0.52	0.51
% change	-2.11	-6.26	-1.57	0.47	2.58	-0.26	-1.51	-1.71
Primary Metals	0.76	0.72	0.69	0.68	0.69	0.69	0.68	0.66
% change	-2.02	-4.43	-3.90	-2.15	1.03	0.97	-2.25	-2.63
High	0.76	0.72	0.69	0.68	0.69	0.70	0.69	0.67
% change	-2.02	-4.43	-3.90	-2.15	1.03	1.56	-1.62	-1.98
Low	0.76	0.72	0.69	0.68	0.69	0.69	0.67	0.64
% change	-2.02	-4.43	-3.90	-2.15	1.03	0.21	-3.00	-3.40

Table 9

U.S. Wage and Salary Employment Scenarios

(In Millions)

	1998	1999	2000	2005	2010	2015	2020	AARG*
Nonfarm Employment	122.26	124.17	126.00	134.75	143.22	150.37	157.02	1.3%
% change	1.61	1.56	1.47	1.35	1.23	0.98	0.87	
High	124.40	126.84	129.15	139.69	150.28	159.46	168.22	1.5%
% change	2.10	1.96	1.82	1.58	1.47	1.19	1.08	
Low	120.97	122.91	124.50	131.41	138.21	143.29	148.36	1.0%
% change	1.34	1.60	1.30	1.09	1.01	0.72	0.70	
Manufacturing	17.75	17.71	17.63	17.32	17.06	16.78	16.53	-0.3%
% change	-0.39	-0.28	-0.42	-0.35	-0.31	-0.33	-0.30	
High	18.18	18.21	18.27	18.34	18.41	18.48	18.54	0.1%
% change	-0.05	0.18	0.31	0.08	0.08	0.07	0.07	
Low	17.20	17.10	16.98	16.27	15.66	15.00	14.51	-0.8%
% change	-1.51	-0.58	-0.73	-0.85	-0.75	-0.86	-0.67	
Durable	10.11	10.08	10.03	9.81	9.55	9.28	9.04	-0.5%
% change	-0.47	-0.28	-0.52	-0.45	-0.52	-0.57	-0.54	
High	10.41	10.43	10.44	10.45	10.44	10.38	10.32	0.0%
% change	0.01	0.17	0.15	0.02	-0.03	-0.11	-0.13	
Low	9.73	9.63	9.51	8.94	8.39	7.75	7.21	-1.3%
% change	-1.83	-1.00	-1.24	-1.23	-1.28	-1.56	-1.43	
Lumber & Wood Prod.	0.71	0.71	0.70	0.68	0.65	0.62	0.59	-0.8%
% change	0.02	-0.47	-1.34	-0.67	-0.81	-1.02	-0.95	
High	0.75	0.76	0.76	0.77	0.77	0.76	0.74	0.1%
% change	1.98	1.43	0.12	0.28	-0.14	-0.33	-0.36	
Low	0.68	0.67	0.67	0.64	0.60	0.57	0.55	-1.1%
% change	-1.32	-0.29	-1.22	-0.90	-1.17	-1.15	-0.65	
Furniture and Fixtures	0.49	0.49	0.49	0.50	0.51	0.52	0.53	0.3%
% change	-0.15	0.17	-0.11	0.38	0.46	0.35	0.32	
High	0.50	0.50	0.49	0.50	0.52	0.53	0.52	0.2%
% change	-0.19	-0.98	-1.62	0.55	0.69	0.27	-0.18	
Low	0.47	0.46	0.45	0.44	0.45	0.46	0.49	0.0%
% change	-2.26	-1.74	-2.61	-0.25	0.37	0.55	1.19	
Stone, Clay and Glass	0.53	0.53	0.54	0.55	0.57	0.59	0.60	0.5%
% change	0.55	0.97	0.40	0.68	0.73	0.48	0.37	
High	0.55	0.56	0.56	0.60	0.62	0.65	0.66	0.9%
% change	1.31	1.79	1.33	1.08	0.96	0.68	0.51	
Low	0.51	0.51	0.52	0.53	0.54	0.56	0.58	0.3%
% change	-0.68	0.98	0.57	0.44	0.65	0.55	0.68	
Primary Metals	0.66	0.66	0.66	0.67	0.67	0.67	0.66	-0.1%
% change	-0.31	0.20	-0.15	0.24	0.24	-0.11	-0.29	
High	0.67	0.68	0.69	0.71	0.73	0.73	0.72	0.2%
% change	0.17	1.15	1.69	0.60	0.39	0.06	-0.16	
Low	0.64	0.64	0.64	0.64	0.64	0.62	0.61	-0.5%
% change	-1.46	0.48	0.97	-0.08	-0.19	-0.50	-0.47	

Table 9

U.S. Wage and Salary Employment Scenarios

(In Millions)

	1990	1991	1992	1993	1994	1995	1996	1997
					< History	Forecast >		
Fabricated Metals	1.42	1.36	1.33	1.33	1.36	1.38	1.37	1.35
% change	-1.83	-4.48	-1.92	0.24	2.43	1.03	-0.61	-1.17
High	1.42	1.36	1.33	1.33	1.36	1.39	1.39	1.39
% change	-1.83	-4.48	-1.92	0.24	2.43	1.80	0.16	-0.45
Low	1.42	1.36	1.33	1.33	1.36	1.37	1.35	1.32
% change	-1.83	-4.48	-1.92	0.24	2.43	0.21	-1.41	-1.91
Industrial Machinery	2.09	2.00	1.93	1.92	1.94	1.98	2.00	1.99
% change	-1.43	-4.53	-3.55	-0.53	1.34	2.01	0.69	-0.34
High	2.09	2.00	1.93	1.92	1.94	2.01	2.04	2.06
% change	-1.43	-4.53	-3.55	-0.53	1.34	3.26	1.81	0.58
Low	2.09	2.00	1.93	1.92	1.94	1.96	1.96	1.93
% change	-1.43	-4.53	-3.55	-0.53	1.34	1.05	-0.30	-1.36
Electrical Machinery	1.67	1.59	1.53	1.52	1.55	1.59	1.58	1.57
% change	-4.06	-4.90	-3.98	-0.51	2.00	2.57	-0.36	-0.99
High	1.67	1.59	1.53	1.52	1.55	1.61	1.62	1.61
% change	-4.06	-4.90	-3.98	-0.51	2.00	3.65	0.55	-0.16
Low	1.67	1.59	1.53	1.52	1.55	1.58	1.56	1.53
% change	-4.06	-4.90	-3.98	-0.51	2.00	1.59	-1.23	-1.89
Transportation Equip.	1.99	1.89	1.83	1.75	1.73	1.74	1.71	1.66
% change	-3.04	-4.97	-3.19	-4.34	-1.38	0.96	-2.15	-2.56
High	1.99	1.89	1.83	1.75	1.73	1.75	1.72	1.69
% change	-3.04	-4.97	-3.19	-4.34	-1.38	1.63	-1.72	-2.10
Low	1.99	1.89	1.83	1.75	1.73	1.73	1.69	1.64
% change	-3.04	-4.97	-3.19	-4.34	-1.38	0.29	-2.62	-3.00
Instruments	1.01	0.97	0.93	0.89	0.86	0.85	0.84	0.82
% change	-1.94	-3.16	-4.68	-3.88	-4.18	-1.11	-1.18	-1.69
High	1.01	0.97	0.93	0.89	0.86	0.86	0.85	0.84
% change	-1.94	-3.16	-4.68	-3.88	-4.18	0.13	-0.98	-1.48
Low	1.01	0.97	0.93	0.89	0.86	0.84	0.83	0.81
% change	-1.94	-3.16	-4.68	-3.88	-4.18	-1.66	-1.36	-1.96
Miscellaneous Mfg.	0.38	0.37	0.37	0.37	0.38	0.38	0.38	0.37
% change	-1.55	-2.60	0.59	1.88	0.87	0.72	-1.32	-1.41
High	0.38	0.37	0.37	0.37	0.38	0.38	0.38	0.38
% change	-1.55	-2.60	0.59	1.88	0.87	1.32	-0.80	-0.95
Low	0.38	0.37	0.37	0.37	0.38	0.38	0.37	0.36
% change	-1.55	-2.60	0.59	1.88	0.87	0.13	-1.78	-1.82
Nondurable	7.92	7.79	7.78	7.79	7.76	7.77	7.72	7.67
% change	-0.36	-1.65	-0.11	0.12	-0.43	0.20	-0.68	-0.67
High	7.92	7.79	7.78	7.79	7.76	7.82	7.80	7.78
% change	-0.36	-1.65	-0.11	0.12	-0.43	0.77	-0.25	-0.25
Low	7.92	7.79	7.78	7.79	7.76	7.72	7.63	7.55
% change	-0.36	-1.65	-0.11	0.12	-0.43	-0.47	-1.12	-1.07

Table 9

U.S. Wage and Salary Employment Scenarios

(In Millions)

	1998	1999	2000	2005	2010	2015	2020	AARG*
Fabricated Metals	1.35	1.34	1.34	1.33	1.33	1.33	1.33	-0.1%
% change	-0.15	-0.63	-0.64	-0.09	0.03	-0.05	0.04	
High	1.39	1.38	1.37	1.39	1.41	1.42	1.44	0.2%
% change	0.02	-0.63	-0.44	0.22	0.32	0.21	0.25	
Low	1.30	1.28	1.27	1.23	1.21	1.19	1.18	-0.5%
% change	-1.62	-1.35	-1.29	-0.59	-0.32	-0.39	-0.07	
Industrial Machinery	1.98	1.97	1.96	1.90	1.82	1.77	1.74	-0.4%
% change	-0.64	-0.55	-0.27	-0.61	-0.85	-0.60	-0.33	
High	2.05	2.06	2.09	2.08	2.08	2.10	2.14	0.4%
% change	-0.06	0.38	1.15	-0.03	-0.01	0.18	0.39	
Low	1.89	1.86	1.85	1.68	1.52	1.36	1.23	-1.8%
% change	-2.20	-1.31	-0.55	-1.93	-2.05	-2.14	-2.06	
Electrical Machinery	1.57	1.57	1.56	1.53	1.49	1.43	1.35	-0.5%
% change	-0.19	0.03	-0.29	-0.39	-0.54	-0.88	-1.10	
High	1.62	1.62	1.62	1.63	1.63	1.61	1.58	0.1%
% change	0.16	0.20	0.07	0.08	0.08	-0.25	-0.48	
Low	1.50	1.49	1.47	1.38	1.29	1.18	1.07	-1.4%
% change	-1.78	-0.77	-1.10	-1.28	-1.28	-1.81	-1.86	
Transportation Equip.	1.64	1.62	1.61	1.52	1.44	1.38	1.32	-1.0%
% change	-1.53	-0.80	-1.05	-1.14	-1.06	-0.86	-0.92	
High	1.67	1.66	1.65	1.60	1.55	1.52	1.49	-0.6%
% change	-1.23	-0.61	-0.66	-0.63	-0.57	-0.35	-0.44	
Low	1.59	1.57	1.55	1.42	1.30	1.17	1.04	-1.9%
% change	-2.49	-1.32	-1.77	-1.66	-1.77	-2.03	-2.44	
Instruments	0.82	0.82	0.82	0.80	0.77	0.73	0.70	-0.8%
% change	-0.31	0.27	-0.31	-0.46	-0.85	-0.96	-0.77	
High	0.83	0.84	0.84	0.83	0.80	0.77	0.75	-0.5%
% change	-0.11	0.45	-0.11	-0.25	-0.62	-0.71	-0.51	
Low	0.80	0.78	0.75	0.67	0.56	0.40	0.26	-4.5%
% change	-1.56	-2.13	-4.05	-2.32	-3.59	-6.43	-8.58	
Miscellaneous Mfg.	0.37	0.37	0.36	0.33	0.29	0.26	0.22	-2.0%
% change	-0.54	-0.70	-1.43	-1.87	-2.19	-2.72	-2.86	
High	0.38	0.37	0.37	0.35	0.32	0.29	0.26	-1.5%
% change	-0.23	-0.42	-0.94	-1.27	-1.60	-2.08	-2.23	
Low	0.36	0.36	0.35	0.31	0.28	0.24	0.21	-2.2%
% change	-1.19	-0.95	-1.68	-2.18	-2.42	-2.82	-2.58	
Nondurable	7.65	7.62	7.60	7.52	7.50	7.49	7.49	-0.1%
% change	-0.28	-0.27	-0.30	-0.22	-0.04	-0.02	0.00	
High	7.77	7.78	7.82	7.88	7.97	8.09	8.23	0.2%
% change	-0.13	0.20	0.53	0.16	0.23	0.29	0.34	
Low	7.47	7.47	7.46	7.32	7.28	7.25	7.30	-0.2%
% change	-1.08	-0.04	-0.06	-0.37	-0.13	-0.06	0.12	

Table 9

U.S. Wage and Salary Employment Scenarios

(In Millions)

	1990	1991	1992	1993	1994	1995	1996	1997
					< History Forecast >			
Processed Foods	1.66	1.67	1.66	1.68	1.67	1.67	1.67	1.67
% change	0.99	0.39	-0.27	0.80	-0.56	0.05	0.04	0.41
High	1.66	1.67	1.66	1.68	1.67	1.68	1.68	1.69
% change	0.99	0.39	-0.27	0.80	-0.56	0.55	0.36	0.68
Low	1.66	1.67	1.66	1.68	1.67	1.66	1.65	1.66
% change	0.99	0.39	-0.27	0.80	-0.56	-0.44	-0.25	0.19
Textiles	0.69	0.67	0.67	0.67	0.67	0.67	0.65	0.63
% change	-3.92	-3.12	0.60	0.11	-0.35	-0.71	-2.51	-2.63
High	0.69	0.67	0.67	0.67	0.67	0.67	0.66	0.65
% change	-3.92	-3.12	0.60	0.11	-0.35	-0.03	-1.98	-2.05
Low	0.69	0.67	0.67	0.67	0.67	0.66	0.64	0.62
% change	-3.92	-3.12	0.60	0.11	-0.35	-1.45	-3.11	-3.22
Apparel	1.04	1.01	1.01	0.98	0.95	0.94	0.93	0.91
% change	-3.67	-2.92	0.11	-2.22	-3.10	-1.15	-1.64	-1.60
High	1.04	1.01	1.01	0.98	0.95	0.95	0.94	0.93
% change	-3.67	-2.92	0.11	-2.22	-3.10	-0.49	-1.29	-1.24
Low	1.04	1.01	1.01	0.98	0.95	0.94	0.92	0.90
% change	-3.67	-2.92	0.11	-2.22	-3.10	-1.95	-1.95	-1.95
Paper Products	0.70	0.69	0.69	0.69	0.68	0.68	0.68	0.67
% change	0.14	-1.28	0.35	-0.10	-0.81	0.09	-0.89	-0.85
High	0.70	0.69	0.69	0.69	0.68	0.69	0.69	0.68
% change	0.14	-1.28	0.35	-0.10	-0.81	0.67	-0.44	-0.42
Low	0.70	0.69	0.69	0.69	0.68	0.68	0.67	0.66
% change	0.14	-1.28	0.35	-0.10	-0.81	-0.52	-1.39	-1.27
Printing & Publishing	1.57	1.54	1.51	1.51	1.53	1.54	1.55	1.55
% change	0.85	-2.15	-1.89	0.44	0.96	1.07	0.17	0.18
High	1.57	1.54	1.51	1.51	1.53	1.55	1.56	1.57
% change	0.85	-2.15	-1.89	0.44	0.96	1.63	0.68	0.68
Low	1.57	1.54	1.51	1.51	1.53	1.54	1.53	1.53
% change	0.85	-2.15	-1.89	0.44	0.96	0.50	-0.35	-0.30
Chemical Products	1.09	1.08	1.08	1.08	1.05	1.05	1.04	1.03
% change	1.13	-0.94	0.76	-0.52	-2.31	-0.54	-0.75	-0.97
High	1.09	1.08	1.08	1.08	1.05	1.05	1.05	1.04
% change	1.13	-0.94	0.76	-0.52	-2.31	-0.01	-0.34	-0.61
Low	1.09	1.08	1.08	1.08	1.05	1.04	1.03	1.02
% change	1.13	-0.94	0.76	-0.52	-2.31	-1.09	-1.16	-1.33
Petroleum Products	0.16	0.16	0.16	0.15	0.15	0.15	0.14	0.14
% change	0.91	1.54	-1.41	-3.97	-2.20	-0.60	-2.05	-2.06
High	0.16	0.16	0.16	0.15	0.15	0.15	0.15	0.14
% change	0.91	1.54	-1.41	-3.97	-2.20	0.00	-1.56	-1.53
Low	0.16	0.16	0.16	0.15	0.15	0.14	0.14	0.13
% change	0.91	1.54	-1.41	-3.97	-2.20	-4.80	-3.22	-3.28

Table 9

U.S. Wage and Salary Employment Scenarios

(In Millions)

	1998	1999	2000	2005	2010	2015	2020	AARG*
Processed Foods	1.68	1.69	1.69	1.69	1.71	1.72	1.73	0.1%
% change	0.49	0.16	-0.02	0.05	0.19	0.12	0.12	
High	1.70	1.71	1.71	1.74	1.77	1.82	1.89	0.5%
% change	0.38	0.35	0.49	0.26	0.42	0.56	0.66	
Low	1.66	1.66	1.66	1.65	1.65	1.65	1.64	-0.1%
% change	-0.18	0.33	0.19	-0.15	0.03	-0.10	-0.11	
Textiles	0.62	0.61	0.59	0.53	0.49	0.44	0.39	-2.1%
% change	-2.13	-2.39	-2.36	-2.05	-1.85	-2.10	-2.26	
High	0.63	0.62	0.61	0.57	0.53	0.48	0.43	-1.7%
% change	-1.68	-1.74	-1.46	-1.49	-1.55	-1.82	-2.04	
Low	0.60	0.59	0.58	0.52	0.47	0.43	0.39	-2.0%
% change	-3.10	-2.06	-2.31	-2.14	-1.84	-1.89	-1.64	
Apparel	0.90	0.89	0.89	0.85	0.81	0.77	0.73	-1.0%
% change	-1.27	-1.02	-0.73	-0.92	-0.82	-1.01	-1.17	
High	0.92	0.91	0.92	0.89	0.86	0.82	0.77	-0.8%
% change	-1.04	-0.46	0.43	-0.48	-0.70	-0.97	-1.27	
Low	0.88	0.88	0.88	0.83	0.81	0.78	0.76	-0.9%
% change	-2.02	-0.29	-0.41	-0.94	-0.71	-0.69	-0.44	
Paper Products	0.67	0.68	0.68	0.69	0.71	0.73	0.74	0.3%
% change	0.32	0.46	0.29	0.39	0.53	0.40	0.38	
High	0.69	0.69	0.70	0.73	0.75	0.77	0.78	0.5%
% change	0.41	0.98	1.32	0.72	0.63	0.49	0.41	
Low	0.66	0.66	0.67	0.68	0.71	0.73	0.75	0.4%
% change	-0.53	0.76	0.90	0.42	0.61	0.57	0.71	
Printing & Publishing	1.55	1.56	1.56	1.59	1.62	1.67	1.73	0.5%
% change	0.33	0.13	0.31	0.36	0.42	0.56	0.68	
High	1.58	1.59	1.61	1.67	1.74	1.82	1.91	0.9%
% change	0.51	0.55	0.98	0.78	0.78	0.90	0.99	
Low	1.52	1.52	1.52	1.53	1.55	1.58	1.65	0.3%
% change	-0.58	0.05	0.29	0.09	0.26	0.46	0.76	
Chemical Products	1.03	1.02	1.03	1.05	1.10	1.14	1.18	0.4%
% change	-0.46	-0.07	0.19	0.51	0.81	0.84	0.68	
High	1.04	1.04	1.05	1.10	1.15	1.20	1.24	0.6%
% change	-0.46	0.24	0.92	0.83	0.91	0.93	0.73	
Low	1.00	1.00	1.01	1.04	1.09	1.14	1.20	0.5%
% change	-1.25	0.11	0.59	0.57	0.89	0.98	0.97	
Petroleum Products	0.14	0.13	0.13	0.11	0.09	0.08	0.07	-2.9%
% change	-2.35	-3.28	-3.37	-3.43	-2.92	-2.80	-3.29	
High	0.14	0.14	0.13	0.13	0.13	0.14	0.16	0.4%
% change	-2.12	-2.40	-1.64	-1.38	0.11	1.87	3.42	
Low	0.13	0.12	0.12	0.09	0.08	0.06	0.05	-3.9%
% change	-4.27	-4.06	-3.73	-4.19	-3.81	-3.77	-4.03	

Table 9

U.S. Wage and Salary Employment Scenarios

(In Millions)

	1990	1991	1992	1993	1994	1995	1996	1997
					< History Forecast >			
Rubber & Plastics	0.89	0.86	0.88	0.90	0.93	0.96	0.95	0.95
% change	-0.05	-2.86	1.82	2.98	3.42	2.35	-0.47	-0.70
High	0.89	0.86	0.88	0.90	0.93	0.96	0.96	0.96
% change	-0.05	-2.86	1.82	2.98	3.42	2.89	0.02	-0.22
Low	0.89	0.86	0.88	0.90	0.93	0.95	0.94	0.93
% change	-0.05	-2.86	1.82	2.98	3.42	1.77	-0.97	-1.18
Leather Products	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11
% change	-3.21	-7.07	-3.03	-2.01	-2.62	-1.63	-2.08	-3.46
High	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11
% change	-3.21	-7.07	-3.03	-2.01	-2.62	-0.95	-1.79	-2.85
Low	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11
% change	-3.21	-7.07	-3.03	-2.01	-2.62	-2.35	-2.49	-3.66
Nonmanufacturing	90.35	89.86	90.49	92.52	95.31	98.05	100.22	102.50
% change	2.09	-0.54	0.71	2.24	3.02	2.88	2.21	2.27
High	90.35	89.86	90.49	92.52	95.31	98.45	100.94	103.66
% change	2.09	-0.54	0.71	2.24	3.02	3.29	2.53	2.70
Low	90.35	89.86	90.49	92.52	95.31	97.78	99.82	101.90
% change	2.09	-0.54	0.71	2.24	3.02	2.59	2.09	2.09
Construction	5.12	4.65	4.49	4.64	4.90	5.02	5.05	5.16
% change	-0.89	-9.18	-3.47	3.27	5.67	2.38	0.54	2.20
High	5.12	4.65	4.49	4.64	4.90	5.09	5.20	5.39
% change	-0.89	-9.18	-3.47	3.27	5.67	3.73	2.22	3.73
Low	5.12	4.65	4.49	4.64	4.90	4.95	4.90	4.92
% change	-0.89	-9.18	-3.47	3.27	5.67	0.93	-1.05	0.41
Mining	0.71	0.69	0.63	0.61	0.60	0.61	0.60	0.60
% change	2.83	-2.90	-7.90	-3.76	-1.01	0.75	-1.74	-0.26
High	0.71	0.69	0.63	0.61	0.60	0.61	0.60	0.60
% change	2.83	-2.90	-7.90	-3.76	-1.01	0.83	-1.94	0.19
Low	0.71	0.69	0.63	0.61	0.60	0.61	0.60	0.60
% change	2.83	-2.90	-7.90	-3.76	-1.01	0.83	-1.89	-0.01
Trans. & Pub. Utilities	5.79	5.76	5.72	5.79	5.84	5.93	6.00	6.09
% change	2.98	-0.53	-0.71	1.16	0.91	1.47	1.23	1.51
High	5.79	5.76	5.72	5.79	5.84	5.94	6.02	6.16
% change	2.98	-0.53	-0.71	1.16	0.91	1.72	1.36	2.33
Low	5.79	5.76	5.72	5.79	5.84	5.87	5.92	6.01
% change	2.98	-0.53	-0.71	1.16	0.91	0.54	0.81	1.54
Wholesale Trade	6.17	6.08	6.00	5.96	6.05	6.16	6.22	6.26
% change	-0.23	-1.49	-1.38	-0.64	1.59	1.73	1.07	0.59
High	6.17	6.08	6.00	5.96	6.05	6.16	6.23	6.28
% change	-0.23	-1.49	-1.38	-0.64	1.59	1.74	1.12	0.78
Low	6.17	6.08	6.00	5.96	6.05	6.14	6.20	6.23
% change	-0.23	-1.49	-1.38	-0.64	1.59	1.46	1.00	0.42

Table 9

U.S. Wage and Salary Employment Scenarios

(In Millions)

	1998	1999	2000	2005	2010	2015	2020	AARG*
Rubber & Plastics	0.94	0.95	0.94	0.92	0.90	0.88	0.87	-0.3%
% change	-0.11	0.25	-0.34	-0.61	-0.43	-0.35	-0.21	
High	0.96	0.97	0.97	0.96	0.95	0.96	0.96	0.1%
% change	0.14	0.59	0.32	-0.24	-0.09	0.02	0.14	
Low	0.92	0.92	0.92	0.88	0.84	0.81	0.78	-0.7%
% change	-0.97	0.11	-0.38	-0.99	-0.82	-0.82	-0.55	
Leather Products	0.10	0.10	0.10	0.09	0.08	0.07	0.06	-2.3%
% change	-2.41	-1.36	-2.24	-2.11	-2.19	-2.38	-2.52	
High	0.11	0.11	0.12	0.11	0.10	0.09	0.08	-1.5%
% change	-0.11	3.83	2.56	-1.21	-2.05	-2.25	-2.52	
Low	0.10	0.11	0.11	0.10	0.09	0.08	0.07	-1.7%
% change	-1.35	3.47	1.55	-1.90	-2.28	-1.98	-1.58	
Nonmanufacturing	104.50	106.46	108.37	117.42	126.16	133.59	140.48	1.5%
% change	1.96	1.87	1.79	1.62	1.45	1.15	1.01	
High	106.23	108.63	110.88	121.35	131.86	140.98	149.68	1.8%
% change	2.48	2.26	2.08	1.82	1.68	1.35	1.20	
Low	103.77	105.81	107.53	115.15	122.55	128.29	133.85	1.3%
% change	1.83	1.96	1.62	1.38	1.25	0.92	0.85	
Construction	5.30	5.39	5.48	5.98	6.60	7.09	7.65	1.7%
% change	2.81	1.75	1.58	1.76	2.00	1.44	1.53	
High	5.73	6.06	6.37	7.24	8.15	8.91	9.71	2.7%
% change	6.29	5.79	4.99	2.62	2.38	1.80	1.74	
Low	5.06	5.31	5.52	5.95	6.38	6.68	7.12	1.4%
% change	2.91	5.04	3.97	1.51	1.39	0.91	1.29	
Mining	0.61	0.62	0.63	0.64	0.63	0.63	0.63	0.1%
% change	1.54	1.75	1.64	0.33	-0.07	-0.17	-0.13	
High	0.62	0.63	0.64	0.66	0.66	0.66	0.67	0.4%
% change	3.47	1.82	1.60	0.44	0.21	-0.21	0.31	
Low	0.60	0.62	0.63	0.62	0.60	0.59	0.58	-0.2%
% change	1.02	2.22	1.97	-0.38	-0.51	-0.57	-0.22	
Trans. & Pub. Utilities	6.20	6.29	6.38	6.65	6.78	6.93	7.07	0.7%
% change	1.76	1.49	1.39	0.83	0.40	0.43	0.40	
High	6.30	6.42	6.54	6.89	7.13	7.38	7.63	1.0%
% change	2.30	1.88	1.78	1.07	0.68	0.69	0.66	
Low	6.09	6.18	6.24	6.36	6.37	6.39	6.43	0.4%
% change	1.36	1.37	1.04	0.39	0.03	0.05	0.14	
Wholesale Trade	6.29	6.31	6.32	6.30	6.24	6.16	6.04	0.0%
% change	0.44	0.34	0.21	-0.09	-0.18	-0.26	-0.38	
High	6.32	6.36	6.39	6.37	6.33	6.25	6.13	0.0%
% change	0.67	0.63	0.43	-0.05	-0.14	-0.23	-0.41	
Low	6.25	6.28	6.29	6.19	6.08	5.94	5.81	-0.2%
% change	0.30	0.49	0.19	-0.32	-0.35	-0.46	-0.45	

Table 9

U.S. Wage and Salary Employment Scenarios

(In Millions)

	1990	1991	1992	1993	1994	1995	1996	1997
					< History	Forecast >		
Retail Trade	19.60	19.28	19.36	19.72	20.29	20.95	21.44	21.95
% change	0.65	-1.62	0.37	1.86	2.90	3.28	2.32	2.40
High	19.60	19.28	19.36	19.72	20.29	21.07	21.58	22.16
% change	0.65	-1.62	0.37	1.86	2.90	3.87	2.41	2.68
Low	19.60	19.28	19.36	19.72	20.29	20.86	21.35	21.83
% change	0.65	-1.62	0.37	1.86	2.90	2.83	2.34	2.24
Fin. Ins. & R. E.	6.71	6.65	6.60	6.71	6.79	6.81	6.86	6.87
% change	0.60	-0.93	-0.67	1.67	1.13	0.36	0.68	0.12
High	6.71	6.65	6.60	6.71	6.79	6.83	6.90	6.93
% change	0.60	-0.93	-0.67	1.67	1.13	0.55	1.04	0.49
Low	6.71	6.65	6.60	6.71	6.79	6.76	6.80	6.80
% change	0.60	-0.93	-0.67	1.67	1.13	-0.36	0.53	0.01
Services, total	27.93	28.33	29.05	30.27	31.79	33.25	34.47	35.74
% change	3.82	1.44	2.52	4.22	5.02	4.58	3.68	3.68
High	27.93	28.33	29.05	30.27	31.79	33.41	34.80	36.25
% change	3.82	1.44	2.52	4.22	5.02	5.10	4.14	4.18
Low	27.93	28.33	29.05	30.27	31.79	33.27	34.50	35.75
% change	3.82	1.44	2.52	4.22	5.02	4.65	3.70	3.61
Health Services	7.81	8.18	8.49	8.77	9.03	9.28	9.62	10.03
% change	4.71	4.72	3.75	3.26	3.01	2.82	3.64	4.29
High	7.81	8.18	8.49	8.77	9.03	9.29	9.65	10.08
% change	4.71	4.72	3.75	3.26	3.01	2.88	3.85	4.50
Low	7.81	8.18	8.49	8.77	9.03	9.28	9.58	9.98
% change	4.71	4.72	3.75	3.26	3.01	2.80	3.22	4.17
Other Services	20.12	20.15	20.56	21.51	22.76	23.96	24.85	25.70
% change	3.47	0.17	2.02	4.61	5.84	5.27	3.69	3.44
High	20.12	20.15	20.56	21.51	22.76	24.12	25.15	26.17
% change	3.47	0.17	2.02	4.61	5.84	5.98	4.25	4.06
Low	20.12	20.15	20.56	21.51	22.76	23.99	24.92	25.77
% change	3.47	0.17	2.02	4.61	5.84	5.39	3.88	3.40
State and Local	15.22	15.44	15.67	15.90	16.17	16.48	16.76	17.01
% change	2.88	1.44	1.52	1.48	1.69	1.91	1.66	1.54
High	15.22	15.44	15.67	15.90	16.17	16.50	16.79	17.06
% change	2.88	1.44	1.52	1.48	1.69	2.01	1.77	1.64
Low	15.22	15.44	15.67	15.90	16.17	16.47	16.72	16.97
% change	2.88	1.44	1.52	1.48	1.69	1.82	1.56	1.45
Federal, Civilian	2.13	2.05	2.05	2.05	2.04	2.03	2.03	2.03
% change	5.95	-4.14	0.33	-0.35	-0.23	-0.42	-0.18	-0.15
High	2.13	2.05	2.05	2.05	2.04	2.03	2.03	2.03
% change	5.95	-4.14	0.33	-0.35	-0.23	-0.42	-0.18	0.22
Low	2.13	2.05	2.05	2.05	2.04	2.03	2.03	2.02
% change	5.95	-4.14	0.33	-0.35	-0.23	-0.42	-0.30	-0.52

Table 9

U.S. Wage and Salary Employment Scenarios

(In Millions)

	1998	1999	2000	2005	2010	2015	2020	AARG*
Retail Trade	22.40	22.79	23.15	24.74	26.21	27.73	29.24	1.4%
% change	2.05	1.72	1.56	1.34	1.16	1.13	1.07	
High	22.67	23.10	23.47	25.16	26.83	28.53	30.31	1.6%
% change	2.33	1.89	1.60	1.40	1.30	1.23	1.22	
Low	22.26	22.67	22.95	24.20	25.31	26.28	27.33	1.2%
% change	1.98	1.84	1.27	1.06	0.90	0.76	0.78	
Fin. Ins. & R. E.	6.87	6.93	7.01	7.55	8.13	8.74	9.37	1.2%
% change	-0.03	0.99	1.04	1.50	1.51	1.44	1.42	
High	6.98	7.10	7.22	7.78	8.38	8.99	9.64	1.4%
% change	0.71	1.67	1.72	1.51	1.50	1.42	1.41	
Low	6.81	6.90	6.99	7.40	7.91	8.43	8.99	1.1%
% change	0.19	1.27	1.30	1.14	1.34	1.29	1.30	
Services, total	36.76	37.81	38.86	44.02	49.11	53.12	56.58	2.2%
% change	2.86	2.85	2.78	2.53	2.21	1.58	1.27	
High	37.45	38.55	39.61	45.47	51.60	56.62	61.13	2.5%
% change	3.31	2.94	2.76	2.80	2.56	1.87	1.54	
Low	36.70	37.64	38.47	43.08	47.77	51.22	54.24	2.1%
% change	2.65	2.57	2.21	2.29	2.09	1.41	1.15	
Health Services	10.41	10.80	11.20	13.27	15.53	17.64	19.67	3.0%
% change	3.79	3.69	3.70	3.45	3.19	2.58	2.21	
High	10.48	10.87	11.31	13.53	15.91	18.16	20.35	3.2%
% change	3.93	3.76	4.03	3.65	3.29	2.68	2.30	
Low	10.32	10.67	11.06	13.02	15.12	17.07	18.95	2.9%
% change	3.41	3.33	3.68	3.31	3.03	2.46	2.11	
Other Services	26.35	27.01	27.66	30.75	33.58	35.48	36.91	1.9%
% change	2.50	2.52	2.40	2.14	1.78	1.11	0.79	
High	26.97	27.68	28.30	31.94	35.69	38.46	40.78	2.3%
% change	3.07	2.62	2.25	2.45	2.25	1.50	1.18	
Low	26.37	26.97	27.41	30.07	32.66	34.15	35.29	1.7%
% change	2.35	2.27	1.63	1.86	1.67	0.90	0.66	
State and Local	17.26	17.49	17.70	18.57	19.34	19.96	20.53	0.9%
% change	1.45	1.31	1.18	0.97	0.81	0.63	0.56	
High	17.32	17.57	17.79	18.76	19.63	20.35	21.03	1.0%
% change	1.52	1.39	1.27	1.07	0.91	0.73	0.66	
Low	17.20	17.40	17.59	18.38	19.04	19.56	20.03	0.8%
% change	1.36	1.19	1.07	0.88	0.72	0.54	0.48	
Federal, Civilian	2.03	2.03	2.05	2.17	2.30	2.43	2.56	0.9%
% change	0.00	0.46	0.90	1.14	1.15	1.10	1.08	
High	2.03	2.04	2.06	2.20	2.34	2.48	2.62	1.0%
% change	-0.03	0.40	0.84	1.31	1.25	1.18	1.15	
Low	2.01	2.02	2.03	2.15	2.26	2.38	2.50	0.8%
% change	-0.17	0.27	0.70	1.11	1.07	1.03	0.99	

Table 9

U.S. Wage and Salary Employment Scenarios

(In Millions)

	1990	1991	1992	1993	1994	1995	1996	1997
					< History Forecast >			
Federal, Military	0.95	0.92	0.92	0.87	0.83	0.81	0.80	0.79
% change	-1.96	-3.20	-0.40	-5.10	-4.81	-1.65	-1.34	-1.12
High	0.95	0.92	0.92	0.87	0.83	0.81	0.80	0.79
% change	-1.96	-3.20	-0.40	-5.10	-4.81	-1.65	-1.34	-1.12
Low	0.95	0.92	0.92	0.87	0.83	0.81	0.80	0.79
% change	-1.96	-3.20	-0.40	-5.10	-4.81	-1.65	-1.34	-1.12

Table 9

U.S. Wage and Salary Employment Scenarios

(In Millions)

	1998	1999	2000	2005	2010	2015	2020	AARG*
Federal, Military	0.79	0.80	0.80	0.82	0.82	0.82	0.82	-0.1%
% change	-0.19	0.40	0.69	0.36	0.01	0.00	0.00	
High	0.79	0.80	0.80	0.82	0.82	0.82	0.82	-0.1%
% change	-0.18	0.57	0.88	0.29	0.00	0.00	0.00	
Low	0.79	0.80	0.81	0.82	0.82	0.82	0.82	-0.1%
% change	-0.08	0.53	0.84	0.29	0.00	0.00	0.00	

* Average annual rate of growth between 1994 and 2020.

Table 10

U.S. Population and Demographic Growth Scenarios

(In Millions)

	1990	1991	1992	1993	1994	1995	1996	1997
					< History Forecast >			
Population, noninstitutional	249.9	252.7	255.5	258.3	261.0	263.6	266.2	268.7
% change	1.03	1.10	1.11	1.10	1.04	1.02	0.97	0.95
High	249.9	252.7	255.5	258.3	261.0	264.3	267.7	270.9
% change	1.03	1.10	1.11	1.10	1.04	1.28	1.26	1.22
Low	249.9	252.7	255.5	258.3	261.0	263.0	264.7	266.4
% change	1.03	1.10	1.11	1.10	1.04	0.76	0.67	0.64
Population, 0-15	61.9	62.6	63.2	63.7	64.2	64.8	65.2	65.6
% change	1.43	1.15	0.95	0.80	0.77	1.00	0.60	0.57
High	61.9	62.6	63.2	63.7	64.2	65.1	65.8	66.6
% change	1.43	1.15	0.95	0.80	0.77	1.47	1.10	1.09
Low	61.9	62.6	63.2	63.7	64.2	64.6	64.7	64.7
% change	1.43	1.15	0.95	0.80	0.77	0.63	0.12	0.06
Population, 16-19	13.8	13.8	13.9	14.0	14.2	14.5	15.0	15.3
% change	-2.87	-0.26	0.87	0.86	1.39	1.86	3.66	2.28
High	13.8	13.8	13.9	14.0	14.2	14.5	15.1	15.5
% change	-2.87	-0.26	0.87	0.86	1.39	2.21	3.92	2.53
Low	13.8	13.8	13.9	14.0	14.2	14.4	14.9	15.2
% change	-2.87	-0.26	0.87	0.86	1.39	1.52	3.41	2.13
Population, 20-24	17.8	17.9	18.1	18.3	18.3	18.0	17.4	17.3
% change	-1.25	0.56	1.08	1.08	0.30	-1.81	-3.27	-0.73
High	17.8	17.9	18.1	18.3	18.3	18.1	17.6	17.6
% change	-1.25	0.56	1.08	1.08	0.30	-1.25	-2.70	-0.22
Low	17.8	17.9	18.1	18.3	18.3	17.9	17.2	17.0
% change	-1.25	0.56	1.08	1.08	0.30	-2.49	-3.90	-1.34
Population, 25-34	42.8	42.4	42.1	41.8	41.3	40.9	40.6	40.0
% change	-0.21	-0.78	-0.78	-0.79	-1.08	-1.06	-0.70	-1.39
High	42.8	42.4	42.1	41.8	41.3	41.0	40.8	40.4
% change	-0.21	-0.78	-0.78	-0.79	-1.08	-0.77	-0.34	-1.01
Low	42.8	42.4	42.1	41.8	41.3	40.7	40.3	39.5
% change	-0.21	-0.78	-0.78	-0.79	-1.08	-1.41	-1.09	-1.82
Population, 35-44	37.3	38.5	39.5	40.6	41.5	42.4	43.2	43.8
% change	3.79	3.16	2.60	2.60	2.41	2.06	1.88	1.42
High	37.3	38.5	39.5	40.6	41.5	42.4	43.3	43.9
% change	3.79	3.16	2.60	2.60	2.41	2.17	1.97	1.53
Low	37.3	38.5	39.5	40.6	41.5	42.3	43.1	43.6
% change	3.79	3.16	2.60	2.60	2.41	1.95	1.76	1.28
Popualation, 45-54	25.4	26.3	27.4	28.6	29.8	31.0	32.2	33.5
% change	2.67	3.56	4.26	4.26	4.09	4.03	3.99	3.94
High	25.4	26.3	27.4	28.6	29.8	31.0	32.2	33.5
% change	2.67	3.56	4.26	4.26	4.09	4.10	4.06	4.02
Low	25.4	26.3	27.4	28.6	29.8	30.9	32.1	33.4
% change	2.67	3.56	4.26	4.26	4.09	3.94	3.91	3.85

Source: WEFA, Long-Term U.S. Economic Outlook, Fourth Quarter 1994, Vol. 1 and 2

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Table 10

U.S. Population and Demographic Growth Scenarios

(In Millions)

	1998	1999	2000	2005	2010	2015	2020	AARG*
Population, noninstitutional	271.2	273.6	276.1	287.9	300.0	312.6	325.4	0.9%
% change	0.92	0.90	0.88	0.84	0.83	0.83	0.81	
High	274.1	277.2	280.2	295.9	311.9	328.9	347.1	1.1%
% change	1.16	1.13	1.10	1.09	1.06	1.07	1.08	
Low	268.0	269.5	271.0	277.9	284.2	291.0	296.1	0.5%
% change	0.58	0.56	0.57	0.50	0.45	0.47	0.35	
Population, 0-15	65.8	66.1	66.5	67.4	67.7	69.8	71.4	0.4%
% change	0.30	0.55	0.60	0.25	0.09	0.61	0.47	
High	67.0	67.5	68.1	70.0	71.1	73.0	74.3	0.6%
% change	0.63	0.83	0.82	0.56	0.32	0.53	0.33	
Low	64.5	64.5	64.5	63.4	61.4	62.8	62.8	-0.1%
% change	-0.29	-0.06	0.09	-0.36	-0.63	0.43	0.00	
Population, 16-19	15.8	16.0	16.0	17.0	18.0	17.6	17.0	0.7%
% change	3.14	1.39	-0.05	1.18	1.13	-0.46	-0.69	
High	16.0	16.2	16.2	17.4	18.6	19.3	19.7	1.3%
% change	3.16	1.51	0.15	1.35	1.34	0.82	0.34	
Low	15.7	15.9	15.8	16.6	17.4	15.9	14.5	0.1%
% change	2.84	1.21	-0.24	1.00	0.92	-1.80	-1.88	
Population, 20-24	17.5	17.8	18.3	20.1	21.6	22.4	22.0	0.7%
% change	0.96	1.83	2.84	1.89	1.43	0.77	-0.33	
High	17.8	18.2	18.7	20.7	22.4	23.7	24.7	1.2%
% change	1.32	2.09	3.02	2.04	1.58	1.10	0.87	
Low	17.0	17.3	17.7	19.3	20.6	21.0	19.4	0.2%
% change	0.42	1.40	2.53	1.75	1.28	0.41	-1.61	
Population, 25-34	39.4	38.6	38.0	37.3	39.0	41.8	44.9	0.3%
% change	-1.64	-1.86	-1.57	-0.38	0.88	1.44	1.43	
High	40.0	39.4	39.0	39.1	41.4	44.7	48.2	0.6%
% change	-1.20	-1.35	-1.03	0.07	1.12	1.54	1.54	
Low	38.7	37.8	37.0	35.3	36.4	38.9	41.6	0.0%
% change	-2.13	-2.39	-2.12	-0.92	0.61	1.34	1.33	
Population, 35-44	44.3	44.6	44.7	42.5	39.6	38.9	38.4	-0.3%
% change	1.25	0.64	0.17	-1.00	-1.42	-0.37	-0.22	
High	44.5	44.8	44.9	43.2	41.2	41.4	41.6	0.0%
% change	1.33	0.68	0.20	-0.76	-0.97	0.08	0.11	
Low	44.1	44.3	44.2	41.4	37.5	35.7	34.6	-0.7%
% change	1.08	0.38	-0.14	-1.32	-1.97	-0.94	-0.64	
Popualation, 45-54	34.3	35.6	36.9	41.4	43.6	41.6	40.0	1.1%
% change	2.57	3.72	3.76	2.30	1.06	-0.97	-0.74	
High	34.4	35.8	37.1	41.8	44.4	42.8	42.1	1.3%
% change	2.66	3.84	3.87	2.39	1.19	-0.70	-0.34	
Low	34.2	35.5	36.8	41.0	42.9	40.1	37.7	0.9%
% change	2.50	3.66	3.69	2.19	0.89	-1.29	-1.23	

Source: WEFA, Long-Term U.S. Economic Outlook, Fourth Quarter 1994, Vol. 1 and 2

Table 10

U.S. Population and Demographic Growth Scenarios

(In Millions)

	1990	1991	1992	1993	1994	1995	1996	1997
					< History	Forecast >		
Population, 55-64	21.2	21.1	20.9	20.7	20.6	20.7	21.0	21.4
% change	-0.85	-0.55	-0.89	-0.89	-0.54	0.32	1.28	2.28
High	21.2	21.1	20.9	20.7	20.6	20.7	21.0	21.5
% change	-0.85	-0.55	-0.89	-0.89	-0.54	0.41	1.39	2.37
Low	21.2	21.1	20.9	20.7	20.6	20.7	20.9	21.3
% change	-0.85	-0.55	-0.89	-0.89	-0.54	0.19	1.19	2.11
Population, 65 and over	29.7	30.1	30.4	30.7	31.0	31.4	31.6	31.8
% change	1.91	1.15	0.98	0.98	1.16	1.31	0.69	0.45
High	29.7	30.1	30.4	30.7	31.0	31.4	31.7	31.9
% change	1.91	1.15	0.98	0.98	1.16	1.34	0.95	0.54
Low	29.7	30.1	30.4	30.7	31.0	31.4	31.5	31.6
% change	1.91	1.15	0.98	0.98	1.16	1.21	0.46	0.22
Households, Census def.	94.3	94.2	96.0	97.8	99.8	101.3	102.6	103.8
% change	1.03	-0.12	1.94	1.86	2.04	1.49	1.28	1.19
High	94.3	94.2	96.0	97.8	99.8	101.4	103.2	104.3
% change	1.03	-0.12	1.94	1.86	2.04	1.63	1.71	1.12
Low	94.3	94.2	96.0	97.8	99.8	101.1	102.2	103.2
% change	1.03	-0.12	1.94	1.86	2.04	1.31	1.07	0.97
Households, Head Age 16-24	4.9	5.0	5.1	5.1	5.4	5.4	5.4	5.4
% change	-4.67	2.74	0.78	1.27	5.53	0.13	-0.85	0.41
High	4.9	5.0	5.1	5.1	5.4	5.4	5.4	5.5
% change	-4.67	2.74	0.78	1.27	5.53	0.60	-0.42	0.79
Low	4.9	5.0	5.1	5.1	5.4	5.4	5.3	5.3
% change	-4.67	2.74	0.78	1.27	5.53	-0.40	-1.30	0.02
Households, Head Age 25-34	20.3	20.1	20.0	19.8	20.0	19.9	19.7	19.4
% change	-0.73	-1.22	-0.46	-0.81	0.72	-0.53	-0.70	-1.39
High	20.3	20.1	20.0	19.8	20.0	19.9	19.8	19.6
% change	-0.73	-1.22	-0.46	-0.81	0.72	-0.23	-0.34	-1.01
Low	20.3	20.1	20.0	19.8	20.0	19.8	19.6	19.2
% change	-0.73	-1.22	-0.46	-0.81	0.72	-0.88	-1.09	-1.82
Households, Head Age+B106 35	21.3	21.2	21.8	22.4	23.3	23.9	24.3	24.6
% change	3.65	-0.27	2.72	2.81	3.70	2.52	1.88	1.42
High	21.3	21.2	21.8	22.4	23.3	23.9	24.4	24.7
% change	3.65	-0.27	2.72	2.81	3.70	2.63	1.97	1.53
Low	21.3	21.2	21.8	22.4	23.3	23.8	24.3	24.6
% change	3.65	-0.27	2.72	2.81	3.70	2.42	1.76	1.28
Households, Head Age 45-54	14.8	14.9	15.8	16.5	17.3	18.0	18.8	19.5
% change	1.63	1.08	5.69	4.98	4.67	4.18	3.99	3.94
High	14.8	14.9	15.8	16.5	17.3	18.1	18.8	19.5
% change	1.63	1.08	5.69	4.98	4.67	4.26	4.06	4.02
Low	14.8	14.9	15.8	16.5	17.3	18.0	18.7	19.5
% change	1.63	1.08	5.69	4.98	4.67	4.09	3.91	3.85

Source: WEFA, Long-Term U.S. Economic Outlook, Fourth Quarter 1994, Vol. 1 and 2

Table 10

U.S. Population and Demographic Growth Scenarios

(In Millions)

	1998	1999	2000	2005	2010	2015	2020	AARG*
Population, 55-64	22.3	22.9	23.3	29.0	34.6	38.9	43.0	2.9%
% change	3.83	2.75	2.07	4.46	3.59	2.36	2.03	
High	22.4	23.0	23.5	29.4	35.2	39.8	44.3	3.0%
% change	4.02	2.91	2.22	4.56	3.69	2.47	2.15	
Low	22.2	22.7	23.2	28.7	34.0	37.9	41.6	2.7%
% change	3.76	2.68	1.98	4.34	3.46	2.21	1.85	
Population, 65 and over	31.8	31.9	32.2	33.2	36.0	41.7	48.6	1.7%
% change	0.19	0.30	0.74	0.65	1.60	2.97	3.11	
High	32.0	32.2	32.6	34.2	37.6	44.2	52.2	2.0%
% change	0.43	0.59	1.10	0.96	1.94	3.27	3.39	
Low	31.6	31.6	31.8	32.2	34.1	38.6	44.1	1.4%
% change	-0.13	0.09	0.61	0.26	1.13	2.53	2.69	
Households, Census def.	105.0	106.2	107.4	113.7	120.7	128.0	136.5	1.2%
% change	1.14	1.15	1.13	1.15	1.20	1.18	1.29	
High	106.6	108.1	109.7	117.9	127.1	137.1	148.6	1.5%
% change	2.17	1.46	1.48	1.45	1.51	1.52	1.63	
Low	104.7	105.3	106.0	109.8	114.1	118.1	122.7	0.8%
% change	1.45	0.60	0.61	0.72	0.76	0.69	0.77	
Households, Head Age 16-24	5.5	5.6	5.7	6.1	6.6	6.7	6.6	0.8%
% change	1.99	1.64	1.49	1.61	1.42	0.38	-0.25	
High	5.8	6.0	6.1	6.7	7.3	7.8	8.2	1.6%
% change	6.72	2.23	2.08	2.02	1.80	1.29	1.02	
Low	5.6	5.6	5.6	5.9	6.2	6.0	5.5	0.1%
% change	5.30	0.55	0.43	1.05	0.93	-0.75	-1.83	
Households, Head Age 25-34	19.1	18.8	18.6	18.3	19.2	20.7	22.3	0.4%
% change	-1.57	-1.66	-1.37	-0.28	0.96	1.52	1.52	
High	19.6	19.4	19.3	19.4	20.7	22.5	24.4	0.8%
% change	-0.16	-1.07	-0.76	0 17	1.25	1.68	1.68	
Low	19.0	18.5	18.1	17.2	17.7	19.0	20.3	0.1%
% change	-1.32	-2.43	-2.17	-1.01	0.62	1.36	1.34	
Households, Head Age+B106 35	25.0	25.1	25.2	24.1	22.5	22.2	22.0	-0.2%
% change	1.28	0.72	0.26	-0.91	-1.33	-0.30	-0.15	
High	25.2	25.4	25.5	24.7	23.7	23.9	24.2	0.1%
% change	1.89	0.84	0.36	-0.63	-0.85	0.19	0.22	
Low	24.9	25.0	25.0	23.4	21.2	20.2	19.6	-0.7%
% change	1.51	0.36	-0.17	-1.30	-1.96	-0.93	-0.64	
Households, Head Age 45-54	20.0	20.8	21.6	24.3	25.7	24.6	23.7	1.2%
% change	2.61	3.79	3.84	2.39	1.14	-0.90	-0.67	
High	20.1	20.8	21.7	24.6	26.2	25.5	25.2	1.4%
% change	2.62	3.96	4.01	2.53	1.32	-0.59	-0.24	
Low	19.9	20.6	21.3	23.7	24.8	23.2	21.8	0.9%
% change	2.24	3.46	3.51	2.16	0.88	-1.30	-1.23	

Source: WEFA, Long-Term U.S. Economic Outlook, Fourth Quarter 1994, Vol. 1 and 2

Table 10

U.S. Population and Demographic Growth Scenarios

(In Millions)

	1990	1991	1992	1993	1994	1995	1996	1997
					< History	Forecast >		
Households, Head Age 55-64	12.5	12.4	12.4	12.5	12.4	12.5	12.6	12.9
% change	-0.04	-0.92	0.33	0.62	-0.64	0.29	1.28	2.28
High	12.5	12.4	12.4	12.5	12.4	12.5	12.7	13.0
% change	-0.04	-0.92	0.33	0.62	-0.64	0.38	1.39	2.37
Low	12.5	12.4	12.4	12.5	12.4	12.5	12.6	12.9
% change	-0.04	-0.92	0.33	0.62	-0.64	0.16	1.19	2.11
Households, Head Age 65 +	20.5	20.5	21.0	21.4	21.4	21.6	21.8	21.9
% change	1.84	0.08	2.01	1.93	0.22	1.11	0.69	0.45
High	20.5	20.5	21.0	21.4	21.4	21.7	22.1	22.0
% change	1.84	0.08	2.01	1.93	0.22	1.15	2.05	-0.54
Low	20.5	20.5	21.0	21.4	21.4	21.6	21.7	21.8
% change	1.84	0.08	2.01	1.93	0.22	1.01	0.46	0.22
Labor Force, Male	68.2	68.4	69.2	69.6	70.7	71.7	73.0	74.2
% change	0.63	0.25	1.13	0.64	1.58	1.39	1.74	1.73
High	68.2	68.4	69.2	69.6	70.7	71.9	73.3	74.7
% change	0.63	0.25	1.13	0.64	1.58	1.62	1.97	1.96
Low	68.2	68.4	69.2	69.6	70.7	71.5	72.6	73.6
% change	0.63	0.25	1.13	0.64	1.58	1.13	1.47	1.45
Labor Force Partic. Rate, Male	76.1	75.4	75.3	74.7	75.0	75.1	75.5	75.9
High	76.1	75.4	75.3	74.7	75.0	75.2	75.5	76.0
Low	76.1	75.4	75.3	74.7	75.0	75.1	75.5	75.9
Labor Force, Female	56.6	56.9	57.8	58.4	60.3	61.4	62.6	63.8
% change	0.95	0.60	1.59	1.05	3.21	1.83	1.99	1.86
High	56.6	56.9	57.8	58.4	60.3	61.5	62.9	64.2
% change	0.95	0.60	1.59	1.05	3.21	2.03	2.19	2.07
Low	56.6	56.9	57.8	58.4	60.3	61.3	62.3	63.4
% change	0.95	0.60	1.59	1.05	3.21	1.60	1.77	1.63
Labor Force Partic. Rate, Fem.	57.5	57.2	57.6	57.6	58.8	59.4	60.0	60.5
High	57.5	57.2	57.6	57.6	58.8	59.4	60.0	60.5
Low	57.5	57.2	57.6	57.6	58.8	59.4	59.9	60.5
Number of Unemployed	6.89	8.44	9.39	8.73	8.01	7.54	8.03	8.35
High	6.89	8.44	9.39	8.73	8.01	7.55	8.09	8.33
Low	6.89	8.44	9.39	8.73	8.01	7.44	7.82	8.05
Unemployment Rate, Civilian	5.5	6.7	7.4	6.8	6.1	5.7	5.9	6.1
High	5.5	6.7	7.4	6.8	6.1	5.7	5.9	6.0
Low	5.5	6.7	7.4	6.8	6.1	5.6	5.8	5.9

Source: WEFA, Long-Term U.S. Economic Outlook, Fourth Quarter 1994, Vol. 1 and 2

Table 10

U.S. Population and Demographic Growth Scenarios

(In Millions)

	1998	1999	2000	2005	2010	2015	2020	AARG*
Households, Head Age 55-64	13.4	13.8	14.1	17.7	21.2	24.0	26.6	3.0%
% change	3.87	2.90	2.22	4.60	3.71	2.45	2.09	
High	13.7	14.1	14.5	18.3	22.1	25.1	28.1	3.2%
% change	5.32	3.21	2.55	4.79	3.89	2.62	2.27	
Low	13.5	13.8	14.1	17.4	20.6	23.0	25.1	2.7%
% change	4.68	2.41	1.75	4.32	3.47	2.21	1.84	
Households, Head Age 65 +	21.9	22.1	22.3	23.2	25.5	29.9	35.3	1.9%
% change	0.25	0.48	0.92	0.85	1.87	3.24	3.40	
High	22.2	22.4	22.8	24.3	27.1	32.3	38.6	2.3%
% change	1.18	0.87	1.53	1.27	2.24	3.54	3.67	
Low	21.8	21.8	21.9	22.2	23.6	26.7	30.6	1.4%
% change	0.26	-0.19	0.47	0.30	1.18	2.55	2.73	
Labor Force, Male	75.3	76.2	77.0	81.1	85.1	87.8	90.5	1.0%
% change	1.51	1.12	1.06	1.06	0.95	0.63	0.60	
High	75.9	76.9	77.9	83.1	87.7	91.4	95.4	1.2%
% change	1.63	1.27	1.26	1.30	1.09	0.83	0.87	
Low	74.4	75.0	75.5	79.0	82.5	84.3	85.7	0.7%
% change	1.08	0.75	0.72	0.91	0.87	0.44	0.31	
Labor Force Partic. Rate, Male	76.2	76.2	76.2	75.9	75.4	74.3	73.2	N.M.
High	76.1	76.0	76.0	75.8	74.7	73.2	71.6	N.M.
Low	76.0	76.0	75.9	76.2	76.4	76.3	76.0	N.M.
Labor Force, Female	64.8	65.7	66.5	71.0	76.1	80.9	85.37	1.3%
% change	1.63	1.30	1.26	1.31	1.41	1.21	1.09	
High	65.3	66.3	67.3	72.6	78.2	83.8	89.55	
% change	1.81	1.54	1.49	1.52	1.52	1.38	1.33	-3.3%
Low	64.2	64.9	65.6	69.6	74.5	78.5	82.06	
% change	1.34	1.07	1.03	1.20	1.37	1.07	0.88	-4.9%
Labor Force Partic. Rate, Fem.	60.9	61.1	61.3	62.4	63.7	64.8	65.6	N.M.
High	60.9	61.1	61.4	62.4	63.4	64.0	64.3	N.M.
Low	60.8	61.1	61.3	62.8	64.9	66.7	68.2	N.M.
Number of Unemployed	8.60	8.42	8.28	8.14	8.52	8.67	9.12	N.M.
High	8.39	8.21	8.17	8.85	9.17	10.02	12.01	N.M.
Low	8.12	7.48	7.18	7.51	8.68	9.19	8.77	N.M.
Unemployment Rate, Civilian	6.1	5.9	5.8	5.4	5.3	5.1	5.2	N.M.
High	5.9	5.7	5.6	5.7	5.5	5.7	6.5	N.M.
Low	5.9	5.3	5.1	5.1	5.5	5.6	5.2	N.M.

* Average annual rate of growth between 1994 and 2020.

Source: WEFA, Long-Term U.S. Economic Outlook, Fourth Quarter 1994, Vol. 1 and 2

Table 11

U.S. Manufacturing Productivity Scenarios

(Percent change)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015
	< History					Forecast >								
Nonfarm Industries														
Medium	-1.40	-0.63	2.94	2.28	2.53	1.56	1.40	0.77	0.79	1.18	1.19	1.16	1.04	1.11
High						1.76	1.68	1.02	1.18	1.47	1.43	1.65	1.62	1.75
Low						1.39	1.06	0.42	0.39	0.34	0.44	0.31	-0.17	-0.41
Manufacturing														
Medium	1.41	1.52	5.75	5.10	5.51	4.01	4.25	3.81	3.01	3.30	3.34	3.03	2.53	2.41
High						3.76	4.13	3.80	3.36	3.23	2.90	3.23	2.98	2.88
Low						4.36	4.35	3.83	3.32	2.46	2.31	2.25	1.40	0.94
Food Processing														
Medium	0.15	1.08	1.96	1.42	3.17	0.75	1.81	1.08	1.53	2.50	2.60	2.72	1.95	2.46
High						0.63	1.72	0.96	1.63	2.36	2.20	2.86	2.08	2.46
Low						1.08	1.90	1.03	1.60	1.86	1.86	2.77	1.82	2.27
Textiles														
Medium	0.67	2.81	6.89	1.56	3.75	4.93	3.56	3.51	4.07	4.91	4.82	4.45	3.91	3.86
High						4.54	3.41	3.46	4.67	4.84	4.29	4.44	4.09	4.01
Low						5.19	3.79	3.55	4.83	4.65	3.97	3.96	3.30	3.12
Apparel														
Medium	1.02	3.42	2.73	1.86	4.30	2.38	3.54	3.39	3.63	4.18	3.78	3.76	2.73	2.42
High						1.84	3.18	3.10	4.15	4.26	3.55	3.74	2.86	2.46
Low						2.74	4.07	3.63	4.62	4.27	3.06	3.13	2.15	1.86
Lumber & Wood														
Medium	0.76	1.08	5.45	1.04	1.23	-0.51	2.12	2.41	1.79	2.13	2.91	3.03	2.54	2.69
High						-0.74	2.07	2.48	2.60	2.08	2.46	2.88	2.56	2.64
Low						-0.26	2.04	2.46	2.53	1.89	2.43	2.84	2.15	2.37
Paper and Pulp														
Medium	0.44	2.17	1.95	4.64	3.49	2.47	3.03	2.90	2.46	2.86	2.90	2.65	2.22	2.12
High						2.09	2.89	2.83	2.84	3.17	2.90	2.69	2.40	2.30
Low						2.80	3.18	2.96	2.97	2.75	2.66	2.29	1.79	1.61
Printing and Publ.														
Medium	-1.13	-1.68	2.14	1.74	1.85	3.23	1.96	2.01	2.55	2.94	2.71	2.69	2.12	1.75
High						3.01	1.89	1.95	2.88	2.81	2.20	2.82	2.34	1.98
Low						3.46	2.05	2.05	3.01	2.40	1.93	2.36	1.62	1.13
Chemicals														
Medium	1.19	0.35	2.41	4.36	6.91	5.43	3.99	3.53	2.99	2.59	2.24	2.25	1.40	1.46
High						5.06	3.90	3.53	3.28	2.82	2.14	2.52	1.81	1.86
Low						5.77	4.08	3.58	3.33	2.27	1.73	1.82	0.78	0.77
Petroleum														
Medium	0.17	-3.50	2.23	6.58	3.37	3.58	3.27	3.01	3.81	5.21	5.19	5.21	5.33	4.68
High						3.22	3.23	2.93	5.30	7.22	5.74	2.89	1.70	-0.73
Low						3.94	3.24	3.09	5.69	7.40	6.50	4.41	4.28	3.41

Source: WEFA, U.S. Long-term Economic Outlook, Fourth Quarter 1994, Vol. 1 and 2

METRO Data Reource Section
US.XLS Prody

Table 11

U.S. Manufacturing Productivity Scenarios

(Percent change)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2005	2010	2015
						< History Forecast >								
Rubber & Plastics														
Medium	1.15	1.29	7.82	3.45	2.98	-2.09	2.78	2.55	2.35	2.47	2.99	3.06	2.83	2.81
High						-2.40	2.62	2.52	2.59	2.42	2.61	3.08	3.01	2.99
Low						-1.78	2.91	2.65	2.73	2.07	2.42	2.66	2.25	2.06
Leather Products														
Medium	-0.35	-3.13	6.42	-0.05	0.67	0.44	1.55	1.48	3.00	2.74	3.32	3.00	2.42	2.25
High						-0.24	1.15	0.99	5.61	3.33	3.25	2.55	2.28	2.07
Low						1.11	2.07	1.67	6.31	3.11	3.29	2.46	1.79	1.36
Stone, Clay & Glass														
Medium	-0.03	-1.69	4.71	3.63	1.53	-1.10	3.27	2.83	2.47	2.68	3.10	2.61	1.95	2.00
High						-1.36	3.24	2.90	3.14	2.74	2.65	2.63	2.18	2.19
Low						-0.83	3.23	2.81	3.04	2.24	2.44	2.23	1.45	1.48
Primary Metals														
Medium	1.38	-3.01	7.54	7.25	4.94	0.55	3.65	3.30	1.67	1.26	1.36	0.81	0.73	1.39
High						0.09	3.56	3.46	2.26	1.93	1.79	0.96	1.15	1.76
Low						0.83	3.61	3.36	2.04	1.21	1.30	-0.05	-0.34	0.19
Fabricated Metals														
Medium	-1.29	0.15	5.86	4.65	3.38	0.04	3.40	2.96	2.08	2.81	2.64	2.23	1.69	1.54
High						-0.32	3.24	2.93	2.26	2.49	1.86	2.24	1.88	1.73
Low						0.40	3.51	3.06	2.38	2.10	1.67	1.77	0.99	0.69
Industrial Mach.														
Medium	1.66	2.48	12.16	13.98	13.19	13.16	9.01	7.93	5.41	4.84	4.34	3.61	3.26	2.89
High						13.45	9.08	8.13	6.09	5.36	4.52	4.22	4.28	4.14
Low						13.29	8.82	7.66	5.39	3.73	3.19	1.95	1.12	-0.47
Electrical Mach.														
Medium	4.78	6.96	11.98	14.86	10.19	1.12	6.65	6.24	4.37	4.08	4.30	3.95	3.67	3.44
High						0.71	6.31	6.10	4.68	3.76	3.42	4.08	4.08	3.91
Low						1.66	6.90	6.43	4.98	3.12	3.07	3.19	2.52	1.80
Transp. Equipment														
Medium	0.98	-0.18	7.25	4.80	4.43	1.36	1.42	1.39	0.72	2.36	2.54	2.38	1.58	1.18
High						0.85	1.13	1.25	1.29	2.08	1.57	2.63	2.13	1.79
Low						1.89	1.69	1.54	1.38	1.17	0.78	1.58	-0.02	-1.13
Instruments														
Medium	2.34	4.47	5.14	3.92	4.99	3.11	4.13	3.80	3.56	3.64	4.03	3.87	3.43	3.44
High						2.69	3.73	3.64	2.74	1.31	1.25	3.75	3.14	2.38
Low						3.50	4.36	4.04	3.08	1.03	0.94	2.43	0.32	-1.90

Source: WEFA, U.S. Long-term Economic Outlook, Fourth Quarter 1994, Vol. 1 and 2

METRO Data Reource Section
US.XLS Prody

Economic Forecast

County-level Employment

(Clackamas, Multnomah, Washington and Clark county)
(in thousands)

Table 12

	Employment Forecast				
	Multnomah	Clackamas	Washington	Clark	Region
1990	453.5	123.1	174.4	104.9	855.9
1991	452.3	128.0	182.1	107.2	869.6
1992	454.7	130.2	186.1	110.1	881.1
1993	463.8	135.8	194.5	114.6	908.7
1994	475.1	149.4	209.6	121.4	955.6
1995	482.6	154.1	217.5	125.4	979.7
1996	488.4	158.4	224.6	129.6	1,001.0
1997	496.4	163.6	233.2	134.5	1,027.7
1998	503.7	168.9	241.6	139.1	1,053.3
1999	510.7	174.4	249.8	143.9	1,078.8
2000	517.1	180.0	258.0	148.9	1,104.0
2001	523.3	185.5	266.0	153.8	1,128.6
2002	529.3	191.0	273.9	158.9	1,153.1
2003	534.9	196.6	282.1	164.0	1,177.6
2004	540.6	202.3	290.7	169.3	1,202.8
2005	545.4	208.4	299.6	175.0	1,228.5
2006	550.8	214.4	308.5	180.6	1,254.4
2007	555.8	220.4	317.4	186.2	1,279.7
2008	560.7	226.4	326.3	191.9	1,305.4
2009	565.2	232.5	335.3	197.7	1,330.6
2010	569.6	238.6	344.3	203.5	1,356.1
2011	574.2	244.9	353.4	209.7	1,382.2
2012	578.7	251.3	362.7	215.9	1,408.7
2013	582.9	257.7	372.1	222.1	1,434.9
2014	586.8	264.1	381.3	228.5	1,460.7
2015	590.7	270.5	390.6	234.9	1,486.6
2016	593.7	276.7	399.6	241.2	1,511.3
2017	596.7	283.1	408.9	247.7	1,536.5
2018	599.7	289.6	418.7	254.4	1,562.4
2019	602.6	296.1	428.5	261.2	1,588.5
2020	605.5	302.8	438.6	268.2	1,615.1

	County Share			
	Multnomah	Clackamas	Washington	Clark
1990	53.0%	14.4%	20.4%	12.3%
1991	52.0%	14.7%	20.9%	12.3%
1992	51.6%	14.8%	21.1%	12.5%
1993	51.0%	14.9%	21.4%	12.6%
1994	49.7%	15.6%	21.9%	12.7%
1995	49.3%	15.7%	22.2%	12.8%
1996	48.8%	15.8%	22.4%	12.9%
1997	48.3%	15.9%	22.7%	13.1%
1998	47.8%	16.0%	22.9%	13.2%
1999	47.3%	16.2%	23.2%	13.3%
2000	46.8%	16.3%	23.4%	13.5%
2001	46.4%	16.4%	23.6%	13.6%
2002	45.9%	16.6%	23.8%	13.8%
2003	45.4%	16.7%	24.0%	13.9%
2004	44.9%	16.8%	24.2%	14.1%
2005	44.4%	17.0%	24.4%	14.2%
2006	43.9%	17.1%	24.6%	14.4%
2007	43.4%	17.2%	24.8%	14.6%
2008	43.0%	17.3%	25.0%	14.7%
2009	42.5%	17.5%	25.2%	14.9%
2010	42.0%	17.6%	25.4%	15.0%
2011	41.5%	17.7%	25.6%	15.2%
2012	41.1%	17.8%	25.7%	15.3%
2013	40.6%	18.0%	25.9%	15.5%
2014	40.2%	18.1%	26.1%	15.6%
2015	39.7%	18.2%	26.3%	15.8%
2016	39.3%	18.3%	26.4%	16.0%
2017	38.8%	18.4%	26.6%	16.1%
2018	38.4%	18.5%	26.8%	16.3%
2019	37.9%	18.6%	27.0%	16.4%
2020	37.5%	18.7%	27.2%	16.6%

	Annual Percentage Growth Rate				
	Multnomah	Clackamas	Washington	Clark	Region
1970-90	6.7%	1.7%	5.0%	4.7%	3.1%
1990-95	1.3%	4.6%	4.5%	3.6%	2.7%
1995-2015	1.0%	2.9%	3.0%	3.2%	2.1%

Nonfarm Employment,
Bureau of Economic Analysis, 1995

Population Forecast

Table 13

County-level

(Clackamas, Multnomah, Washington and Clark counties)
(in thousands)

	Population Forecast				
	Multnomah	Clackamas	Washington	Clark	Region
1990	583.9	278.9	311.6	238.1	1,412.3
1991	600.0	288.7	328.5	250.3	1,467.5
1992	605.0	294.5	340.0	257.5	1,497.0
1993	615.0	302.0	351.0	269.5	1,537.5
1994	620.0	305.5	359.5	280.8	1,565.8
1995	624.0	312.6	370.0	290.4	1,597.1
1996	631.9	318.6	379.8	294.7	1,625.0
1997	640.3	325.0	390.6	300.1	1,656.1
1998	650.4	331.9	402.3	306.4	1,691.1
1999	659.6	338.6	413.6	313.2	1,725.0
2000	667.3	345.0	424.3	320.1	1,756.7
2001	673.9	350.9	434.2	326.7	1,785.7
2002	680.5	356.7	444.0	333.8	1,815.0
2003	687.1	362.6	454.4	341.2	1,845.3
2004	693.0	368.3	464.8	348.5	1,874.7
2005	697.8	374.1	475.3	356.3	1,903.6
2006	703.4	380.0	485.9	364.0	1,933.3
2007	709.2	385.8	496.7	372.0	1,963.8
2008	715.0	391.7	507.7	380.3	1,994.8
2009	720.4	397.5	518.7	388.4	2,025.0
2010	725.9	403.4	529.8	396.8	2,055.9
2011	731.5	409.2	540.8	405.4	2,087.0
2012	737.4	415.3	552.2	414.4	2,119.3
2013	742.9	421.2	563.8	423.2	2,151.1
2014	747.6	426.8	574.6	431.8	2,180.9
2015	752.3	432.4	585.5	440.6	2,210.8
2016	756.9	438.1	596.7	449.5	2,241.1
2017	761.1	443.6	607.9	458.4	2,271.1
2018	765.3	449.2	619.5	467.5	2,301.6
2019	769.5	454.8	631.3	476.8	2,332.4
2020	773.6	460.5	643.3	486.2	2,363.6

	County Share			
	Multnomah	Clackamas	Washington	Clark
1990	41.3%	19.7%	22.1%	16.9%
1991	40.9%	19.7%	22.4%	17.1%
1992	40.4%	19.7%	22.7%	17.2%
1993	40.0%	19.6%	22.8%	17.5%
1994	39.6%	19.5%	23.0%	17.9%
1995	39.1%	19.6%	23.2%	18.2%
1996	38.9%	19.6%	23.4%	18.1%
1997	38.7%	19.6%	23.6%	18.1%
1998	38.5%	19.6%	23.8%	18.1%
1999	38.2%	19.6%	24.0%	18.2%
2000	38.0%	19.6%	24.2%	18.2%
2001	37.7%	19.7%	24.3%	18.3%
2002	37.5%	19.7%	24.5%	18.4%
2003	37.2%	19.7%	24.6%	18.5%
2004	37.0%	19.6%	24.8%	18.6%
2005	36.7%	19.7%	25.0%	18.7%
2006	36.4%	19.7%	25.1%	18.8%
2007	36.1%	19.6%	25.3%	18.9%
2008	35.8%	19.6%	25.5%	19.1%
2009	35.6%	19.6%	25.6%	19.2%
2010	35.3%	19.6%	25.8%	19.3%
2011	35.1%	19.6%	25.9%	19.4%
2012	34.8%	19.6%	26.1%	19.6%
2013	34.5%	19.6%	26.2%	19.7%
2014	34.3%	19.6%	26.3%	19.8%
2015	34.0%	19.6%	26.5%	19.9%
2016	33.8%	19.5%	26.6%	20.1%
2017	33.5%	19.5%	26.8%	20.2%
2018	33.3%	19.5%	26.9%	20.3%
2019	33.0%	19.5%	27.1%	20.4%
2020	32.7%	19.5%	27.2%	20.6%

	Annual Percentage Growth Rate				
	Multnomah	Clackamas	Washington	Clark	Region
1970-90	6.7%	1.7%	5.0%	4.7%	3.1%
1990-95	1.3%	2.3%	3.5%	4.1%	2.5%
1995-2015	0.9%	1.6%	2.3%	2.1%	1.6%

Household Forecast
County-level

(Clackamas, Multnomah, Washington and Clark counties)
(in thousands)

Table 14a

	Household Forecast					Persons per Household Forecast					County Share			
	Multnomah	Clackamas	Washington	Clark	Region	Multnomah	Clackamas	Washington	Clark	Region	Multnomah	Clackamas	Washington	Clark
1990	242.1	103.5	119.0	88.4	553.1	2.41	2.69	2.62	2.69	2.55	43.8%	18.7%	21.5%	16.0%
1991	244.4	107.4	123.9	91.6	567.3	2.46	2.69	2.65	2.73	2.59	43.1%	18.9%	21.8%	16.1%
1992	247.6	110.1	126.1	94.2	578.0	2.44	2.68	2.70	2.73	2.59	42.8%	19.0%	21.8%	16.3%
1993	249.3	112.2	128.8	97.7	587.9	2.47	2.69	2.72	2.76	2.62	42.4%	19.1%	21.9%	16.6%
1994	252.4	116.0	134.0	102.0	604.4	2.46	2.63	2.68	2.75	2.59	41.8%	19.2%	22.2%	16.9%
1995	256.8	119.1	138.9	106.0	620.8	2.43	2.62	2.66	2.74	2.57	41.4%	19.2%	22.4%	17.1%
1996	262.8	121.8	143.5	108.0	636.2	2.40	2.61	2.65	2.73	2.55	41.3%	19.1%	22.6%	17.0%
1997	269.2	124.8	148.6	110.5	653.1	2.38	2.60	2.63	2.72	2.54	41.2%	19.1%	22.8%	16.9%
1998	276.4	127.9	154.1	113.4	671.8	2.35	2.60	2.61	2.70	2.52	41.1%	19.0%	22.9%	16.9%
1999	283.4	131.0	159.5	116.4	690.2	2.33	2.59	2.59	2.69	2.50	41.1%	19.0%	23.1%	16.9%
2000	286.7	133.5	163.6	118.9	702.7	2.33	2.59	2.59	2.69	2.50	40.8%	19.0%	23.3%	16.9%
2001	290.8	136.6	167.6	121.7	716.8	2.32	2.57	2.59	2.68	2.49	40.6%	19.1%	23.4%	17.0%
2002	295.0	139.7	171.6	124.6	731.0	2.31	2.55	2.59	2.68	2.48	40.4%	19.1%	23.5%	17.1%
2003	299.2	143.0	175.8	127.7	745.7	2.30	2.54	2.59	2.67	2.47	40.1%	19.2%	23.6%	17.1%
2004	303.2	146.1	180.0	130.8	760.1	2.29	2.52	2.58	2.66	2.47	39.9%	19.2%	23.7%	17.2%
2005	306.7	149.4	184.2	134.0	774.3	2.28	2.50	2.58	2.66	2.46	39.6%	19.3%	23.8%	17.3%
2006	309.3	152.5	188.5	137.8	788.1	2.27	2.49	2.58	2.64	2.45	39.2%	19.4%	23.9%	17.5%
2007	312.0	155.7	192.8	141.7	802.3	2.27	2.48	2.58	2.62	2.45	38.9%	19.4%	24.0%	17.7%
2008	314.7	159.0	197.2	145.8	816.7	2.27	2.46	2.57	2.61	2.44	38.5%	19.5%	24.1%	17.9%
2009	317.2	162.2	201.7	149.9	831.0	2.27	2.45	2.57	2.59	2.44	38.2%	19.5%	24.3%	18.0%
2010	319.8	165.5	206.1	154.1	845.6	2.27	2.44	2.57	2.58	2.43	37.8%	19.6%	24.4%	18.2%
2011	322.6	168.6	210.4	158.6	860.2	2.27	2.43	2.57	2.56	2.43	37.5%	19.6%	24.5%	18.4%
2012	325.6	171.7	214.7	163.2	875.3	2.26	2.42	2.57	2.54	2.42	37.2%	19.6%	24.5%	18.6%
2013	328.5	174.9	219.1	167.9	890.4	2.26	2.41	2.57	2.52	2.42	36.9%	19.6%	24.6%	18.9%
2014	331.0	177.9	223.3	172.5	904.7	2.26	2.40	2.57	2.50	2.41	36.6%	19.7%	24.7%	19.1%
2015	333.5	180.9	227.5	177.3	919.1	2.26	2.39	2.57	2.49	2.41	36.3%	19.7%	24.7%	19.3%
2016	336.9	184.1	232.2	181.3	934.5	2.25	2.38	2.57	2.48	2.40	36.1%	19.7%	24.8%	19.4%
2017	338.3	186.8	237.1	185.8	947.9	2.25	2.38	2.56	2.47	2.40	35.7%	19.7%	25.0%	19.6%
2018	341.7	189.5	242.1	189.3	962.5	2.24	2.37	2.56	2.47	2.39	35.5%	19.7%	25.1%	19.7%
2019	343.5	191.9	246.6	194.0	976.0	2.24	2.37	2.56	2.46	2.39	35.2%	19.7%	25.3%	19.9%
2020	347.0	195.1	252.3	197.6	992.1	2.23	2.36	2.55	2.46	2.38	35.0%	19.7%	25.4%	19.9%

Metro Data Resource Center
Source: Econometric Estimates

FCST4CTY.XLS HHrev
1/26/96

Household Forecast
Region Total
(Clackamas, Multnomah, Washington and Clark county)

Table 14b

	Number of Households by Age of Head (4 counties)							5-year	Household		5-year
	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 and over	TOTAL	%change	Size Avg.	Population	%change
1990	31,236	120,900	141,956	87,509	62,646	108,860	553,107		2.553	1,412,344	
1991	32,854	122,133	146,257	91,247	63,358	111,452	567,300		2.599	1,467,500	
1992	33,142	119,966	147,649	101,154	64,206	111,884	578,000		2.580	1,497,000	
1993	33,542	118,023	150,008	107,549	65,241	113,536	587,900		2.557	1,537,500	
1994	35,801	122,482	154,817	110,229	66,425	114,646	604,400		2.535	1,565,800	
1995	36,997	123,875	157,733	115,997	69,060	117,138	620,800	2.34%	2.573	1,597,100	2.49%
1996	37,923	123,602	158,735	123,121	72,887	119,932	636,200		2.569	1,625,300	
1997	39,130	124,240	159,576	129,879	77,375	122,900	653,100		2.565	1,656,700	
1998	40,562	125,899	160,439	136,273	82,444	126,183	671,800		2.560	1,692,000	
1999	41,855	127,824	160,996	142,009	87,834	129,680	690,200		2.553	1,726,300	
2000	42,673	128,755	160,117	146,025	92,723	132,408	702,700	2.51%	2.500	1,756,700	1.92%
2001	43,493	129,963	159,638	149,911	97,966	135,828	716,800		2.492	1,786,100	
2002	44,287	131,308	159,250	153,306	103,254	139,595	731,000		2.484	1,815,800	
2003	45,134	132,993	159,038	156,278	108,522	143,734	745,700		2.476	1,846,500	
2004	45,906	134,671	158,875	158,761	113,631	148,257	760,100		2.468	1,876,300	
2005	46,634	136,369	158,807	160,817	118,533	153,140	774,300	1.96%	2.458	1,903,600	1.62%
2006	47,343	138,094	158,819	162,440	123,139	158,265	788,100		2.450	1,933,300	
2007	48,073	140,006	159,088	163,839	127,531	163,763	802,300		2.443	1,963,800	
2008	48,804	142,041	159,580	165,036	131,661	169,578	816,700		2.435	1,994,800	
2009	49,490	144,025	160,231	166,063	135,509	175,682	831,000		2.428	2,025,100	
2010	50,195	146,132	161,115	166,999	139,098	182,062	845,600	1.78%	2.431	2,055,900	1.55%
2011	50,890	148,261	162,152	167,841	142,394	188,662	860,200		2.425	2,087,000	
2012	51,630	150,565	163,435	168,689	145,460	195,521	875,300		2.418	2,119,300	
2013	52,341	152,822	164,861	169,529	148,273	202,575	890,400		2.412	2,151,200	
2014	52,979	154,729	166,246	170,280	150,738	209,728	904,700		2.405	2,181,000	
2015	53,656	156,642	167,754	171,070	152,974	217,004	919,100	1.68%	2.405	2,210,800	1.46%
2016	54,401	158,716	169,535	172,082	155,170	224,596	934,500		2.399	2,241,100	
2017	55,026	160,396	171,025	172,792	156,868	231,793	947,900		2.393	2,271,000	
2018	55,738	162,288	172,797	173,778	158,601	239,299	962,500		2.387	2,301,300	
2019	56,356	163,944	174,222	174,401	160,257	246,820	976,000		2.381	2,332,600	
2020	57,115	166,002	176,070	175,435	162,308	255,171	992,100	1.54%	2.382	2,363,600	1.35%

Metro, Data Resource Center
Source: Econometric Estimates

NHHLDPV.XLS forecast
1/26/96

021998c-07

Proposed Rate Ordinance includes a proposal to provide a reduction in the Regional User Fee for solid waste facilities that recycle a significant portion of the waste that goes through the facilities. For dry waste, a reduction in the user fee would begin at 20% recycling and steadily increase up to 50% recycling. There will likely be several new facilities coming on line in the near future that will process both wet and dry waste. The proposed ordinance would require that, to receive the reduction in the regional user fee, these facilities must have an overall recycling rate of at least 10 percent. For example, if a facility processes a total of 10,000 tons of wet and dry waste, it must recycle at least 1,000 tons to qualify for the fee reduction.

The purpose of this requirement is to make a distinction between material recovery facilities whose primarily purpose is recycling, and a reload facility that has a primary purpose reducing costs by loading wet waste into larger trucks for transport to a disposal site. Recycling at such a facility would be relatively minimal, less than 10%. A rate benefit would be offered to the recycling facility and it would be more difficult for the reload to meet the 10% minimum.

Prepared by
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