

WHERE THE HIGH SCHOOL GRADUATES GO

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Executive Summary

1984 class reunion mailing lists from eight Wisconsin high schools showed dispersal patterns of graduates ten years later. Reunion committees from Arrowhead Union High School at Hartland and high schools at Barron, Grantsburg, Hayward, Neillsville, Oconto, Philips and Webster provided zip coded 1994 addresses of living graduates. Graduates were classified into seven different categories of location, ranging from continuing to live in the same community as the high school to a mailing address in a foreign country.

- * Almost half of all graduates (44.6%) have moved in the ten years to a community more than 25-miles from the high school they attended.

Distribution of graduates ten years later:

Still in the local zipcode	32.4%
Other communities, within 25 miles	23.0
Living 26-50 miles away	5.4
In other Wisconsin communities	15.2
Iowa, Illinois, Michigan or Minnesota	11.4
Other United States	11.9
International addresses	0.7

- * The number of students in the class and the geographic location of the school were not shown to be factors in the dispersal of graduates.
- * Although there was variation among the schools, typically there were about 50% as many different communities of current residence as there were graduates in the 1984 class.
- * There were no obvious gender differences in location of graduates ten years later. Male and female graduates were dispersed among six of the seven categories at about the same rates. All of the graduates with current international addresses, however, were male.
- * Current residence location for 985 graduates were tallied for this study. Graduating class sizes ranged from 53 to 315.

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Introduction

"Our community needs industrial development so there will be jobs for our high school graduates!"

That sentiment is often expressed. In practice, however, when industrial expansion does create new jobs in a community, there is a mis-match between skills required and the talents and interests of local residents. Nearly half the jobs go to commuters who drive in from other places. One study of 236 employers in 19 nonmetropolitan Wisconsin counties showed that 44% of current employees don't live in the community where the plant or office is located.

So where do the high school graduates go to get jobs?

That picture was not clear. Some proportion obviously remain in the community where they were raised. Indeterminate numbers migrate elsewhere to start their working careers.

High school counselors follow graduates' paths on to college or other post-high school education, but there the trail ends. No agency consistently collects data showing what percentage of a graduating class typically leaves a community, or whether the proportions vary with urban-rural character, size of class, male-female distribution, or any other factor.

The authors hit upon a relatively simple means to learn where high school graduates migrate. A high school class reunion provides a ready-made "snapshot" of graduates. Ten years after graduation was thought to be a useful time period to examine. All that was needed was to identify schools whose 1984 classes were holding reunions in 1994.

Study design

High schools in this study were chosen on only one basis: Willingness to cooperate. For that wholehearted cooperation, the authors express their gratitude.

Given the timeframe in which data had to be gathered, it was not possible to identify all Wisconsin high schools having a ten-year reunion in the summer of 1994. However the eight classes which provided data are geographically dispersed and range substantially in class size.

Schools included in the study:

Arrowhead Union High School (Hartland)	Waukesha County
Barron High School	Barron County
Grantsburg High School	Burnett County
Hayward High School	Sawyer County
Neillsville High School	Clark County
Oconto High School	Oconto County
Phillips High School	Price County
Webster High School	Burnett County

The person in charge of the 1984 class reunion was asked to provide either (a) the final mailing list used to communicate with class members or (b) a copy of a current "directory" of classmates, if one was published for the reunion. Either would give addresses and zipcodes, showing 1994 geographic distribution of class members. The zipcode of the graduate's place of residence was the principal code factor for this analysis.

Reunion committees are creative in their efforts to find classmates. First class mail is used to invite classmates to the reunion event. Class members are asked about graduates whose present addresses are unknown to the reunion committee. A majority of alumni respond to the reunion invitation, confirming their addresses. And because the post office returns undeliverable first class mail, an assumption can be made that the outgoing mail addresses of nonrespondents are currently accurate.

Unaccounted for in this process are two categories of graduates: (1) Those who might have died during the ten year period, and (2) those who are simply unaccounted for, whose whereabouts are unknown to any other class member. In a ten year period, however, these numbers tend to be small.

Most school systems serve students from several nearby communities with different zipcodes from that of the school's location. It was decided that graduates at zipcodes within a 25-miles radius around the school community would be defined as "still in the locality."

A Wisconsin highway map was used to code communities within 25 miles and from 26 to 50 miles of the zipcode where the high school was located; beyond 50 miles only the state or country of residence was coded.

The authors theorized that there might be differences in location of male and female graduates after a decade. Gender and zipcode were entered into a computer file for each high school.

Seven concentric distribution bands were designed to show dispersal patterns of the high school graduates:

1. Remaining in the zipcode of the high school from which the student graduated in 1984.
2. Living in another community (zipcode) within 25 miles of the high school zipcode.
3. Living between 26 and 50 miles from the high school of graduation.
4. Living in some other Wisconsin community, more than 50 miles away.
5. Living in one of Wisconsin's contiguous states (Illinois, Iowa, Michigan or Minnesota) more than 50 miles from the high school.
6. Living in one of the other United States (not upper midwest).
7. A mailing address outside the United States of America.

Findings

The 1984 class size of the eight high schools varied substantially, from the 53 alumni identified at Webster to 315 from Arrowhead Union High School at Hartland. Just over half (55.4%) were still living within 25 miles of the school from which they graduated ten years earlier. "Within 25-miles" is probably the best indicator of continuing to reside where one went to high school, inasmuch as most high schools draw students from several smaller communities (different zip codes) in the area.

However, looked at the other way, almost half (44.6%) of the 1984 graduates are now far removed from the community where they had their roots.

RESIDENCE OF GRADUATES TEN YEARS LATER

School	Class Size	1994 Residence	
		Within 25miles	Beyond 25miles
Arrowhead	315	67.0%	33.0%
Barron	97	62.9%	37.1%
Grantsburg	68	51.5%	48.5%
Hayward	154	40.9%	59.1%
Neillsville	85	36.5%	63.5%
Oconto	111	58.5%	41.5%
Phillips	102	48.0%	52.0%
Webster	<u>53</u>	<u>39.6%</u>	<u>60.4%</u>
Eight schools	985	55.4%	44.6%

The Arrowhead High School, at the western edge of the Milwaukee metropolitan area, had the largest proportion (67%) of its 1984 graduating class continuing to live in the school vicinity. One might conjecture that it is because of Arrowhead's location in a densely populated industrial area with abundant employment opportunities. With more work opportunities for graduates, they don't have to go so far to match their interests and skills with available jobs.

But that does not explain the high local retention (62%) in Barron, a county seat in the rural northwestern section of the state. Barron County and its surrounding area have neither the concentration nor diversity of enterprises that Waukesha and nearby counties have.

Also unexplained are the differences in locational patterns among the eight high schools. About a third (32.4%) of all 1984 graduates in this sample lived in 1994 in the same community as their high school. Another 23% have a different zipcode, but are still within 25-miles of the high school. Once out of the area, graduates scatter widely but not uniformly.

AVERAGE FOR ALL EIGHT HIGH SCHOOLS

1994 Residence	Avg.	Low	High
Still in the local zipcode	32.4%	28.3%W	42.4%N
Other communities, within 25 miles	23.0%	5.9%N	38.4%A
Living 26-50 miles away	5.4%	1.3%H	14.4%O
In other Wisconsin communities	15.2%	8.6%A	25.5%H
Iowa, Illinois, Michigan or Minnesota	11.4%	2.7%O	22.6%W
Other United States	11.9%	3.1%B	17.0%H
International addresses	0.7%	0.0%	2.9%G

High and Low schools may be identified by the capital letter following the percentage:
 A=Arrowhead; B=Barron; G=Grantsburg; H=Hayward; N=Neillsville; O=Oconto;
 P=Phillips; W=Webster.

The wide range between lows and highs reveals no consist pattern. There is nothing to suggest that school size or location are major factors in the dispersion of graduates.

Does the gender of the graduate influence future location? These data suggest not.

GENDER DIFFERENCES IN LOCATION (EIGHT SCHOOLS)

	Male	Female
Still in the local zipcode	34.4%	30.1%
Other communities, within 25 miles	22.6%	23.7%
Living 26-50 miles away	5.0%	6.0%
In other Wisconsin communities	15.5%	14.6%
Iowa, Illinois, Michigan or Minnesota	8.6%	14.3%
Other United States	12.6%	11.2%
International addresses	<u>1.3%</u>	<u>0.0%</u>
	100. %	100. %

The relatively narrow aggregate differences suggest that men and women are about equally likely to relocate outside the area where they went to high school. Individual schools have wider and opposite ranges in some categories. In Neillsville, for example, 46% of men were still in the local zipcode ten years after graduation, but only 36% of the women graduates. Oconto's ratio for local zip was reversed: Men 28% and women 47%.

Are there metropolitan cities which are "magnets" drawing large numbers of graduates? Analysis of current zipcodes of graduates for each individual high school do not reveal any. A disproportionate number of Grantsburg and Webster graduates relocate across the state boundary to Minnesota, but the pull of Minneapolis and St. Paul is consistent with that state's population distribution. Arrowhead High School's location within the Milwaukee metropolitan area obscures any magnet effect.

Is the dispersal rate of graduates consistent among these eight schools? One hundred graduates could select 100 different places to live after high school, or they could cluster in only a handful of communities. Is the number of current cities of residence closely linked to class size?

The following table shows the ratio of number of different current zipcodes of residence divided by the number of persons identified in the graduating class.

School	Ratio
Arrowhead	.454
Barron	.464
Grantsburg	.515
Hayward	.555
Neillsville	.412
Oconto	.396
Phillips	.569
Webster	.642

The higher the ratio, the greater the relative dispersal. That means that members of a high ratio graduating class have settled in to a greater number of different communities than a class with a low ratio. Webster has the highest dispersal ratio; given the size of the class, its graduates have relocated to a greater number of places. Oconto has the lowest ratio; its graduates have chosen to live in proportionately fewer communities after ten years.

The similarity in dispersal ratios among schools is more important than the slight variations. Over all in the migration pattern there is a different community for about every other graduate.

Complete data are shown in the Appendix for those who wish to make their own analysis.

Discussion

This snapshot of the current residential location of members of 1984 graduating classes in eight Wisconsin high schools is not "representative" of all schools in any statistical sense. However, given the school locations in three of the four quadrants of the state, and given the class size range, this small sample does not appear to be seriously biased.

It seems likely that for Wisconsin high schools in general, close to half of the graduates of ten years ago no longer live in the area. Whether the outmigrants constitute only a third of the class (Arrowhead High School's 33%) or nearly two-thirds (64% at Neillsville) the outmigration is substantial.

Two matters of educational policy surface here:

1. With rapid technological change and increased skill demands, local communities will not likely succeed in stemming the outmigration of graduates by educating students primarily for local jobs. The world marketplace has reached rural Wisconsin. Graduates will leave; immigrants with different skill sets will take their place in the community.
2. Increasingly schools must educate children to be citizens of the world, appreciative of local standards and mores but prepared to function fully wherever in the nation or the world they may later choose to live.

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Appendix

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HIGH SCHOOL	SCH #	STILL IN LOCAL ZIP		WITHIN 25 MILES		25 TO 50 MILES		IN WISCONSIN (50+MIL)		IN IA, IL, MI & MN		ELSEWHERE IN U.S.		OVERSEAS ADDRESS		ROW SUMS				
		Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Total		
Arrowhead Union High School	2450	41	49	90	62	59	121	7	5	12	13	13	16	23	39	0	0	152	163	315
Barron High School	3088	11	16	29	17	12	32	3	2	5	7	4	13	0	3	0	0	50	40	97
Grantsburg High School	2233	11	15	28	5	12	7	1	2	3	0	7	14	4	3	0	2	30	36	68
Hayward High School	2478	25	23	48	7	7	15	1	2	24	8	13	21	12	26	0	2	83	68	154
Neillsville High School	3899	16	17	36	2	3	5	6	2	8	11	7	9	3	5	0	0	44	37	85
Oconto High School	4067	25	15	43	12	10	22	8	8	16	4	10	4	6	11	0	2	53	54	111
Phillips High School	4347	9	21	30	7	11	19	0	1	9	7	3	12	7	14	0	0	39	56	102
Webster High School	6293	7	8	15	2	4	6	3	3	6	2	2	7	2	9	0	0	30	23	53
Sum:		145	164	319	114	108	227	29	24	53	70	74	150	60	117	0	6	481	477	985

HIGH SCHOOL	SCH #	STILL IN LOCAL ZIP		WITHIN 25 MILES		25 TO 50 MILES		OTHER WISCONSIN		IN IA, IL, MI & MN		ELSEWHERE IN U.S.		OVERSEAS ADDRESS							
		Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Total					
Arrowhead Union High School	2450	27.0%	30.1%	28.6%	40.8%	36.2%	38.4%	4.6%	3.1%	3.8%	8.6%	8.6%	10.5%	14.1%	12.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
Barron High School	3088	22.0%	40.0%	29.9%	34.0%	30.0%	33.0%	6.0%	5.0%	5.2%	14.0%	10.0%	0.0%	7.5%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Grantsburg High School	2233	36.7%	41.7%	41.2%	16.7%	5.6%	10.3%	3.3%	5.6%	4.4%	0.0%	19.4%	10.3%	13.3%	8.3%	0.0%	5.6%	2.9%	1.9%	2.9%	
Hayward High School	2478	30.1%	33.8%	31.2%	8.4%	10.3%	9.7%	1.2%	1.5%	1.3%	28.9%	22.1%	25.3%	15.7%	17.6%	16.9%	0.0%	2.9%	1.9%	1.9%	
Neillsville High School	3899	36.4%	45.9%	42.4%	4.5%	8.1%	5.9%	13.6%	5.4%	9.4%	25.0%	18.9%	22.4%	6.8%	13.5%	9.4%	0.0%	0.0%	0.0%	0.0%	
Oconto High School	4067	47.2%	27.8%	38.7%	22.6%	18.5%	19.8%	15.1%	14.8%	14.4%	0.0%	5.6%	2.7%	7.5%	11.1%	9.9%	0.0%	3.7%	1.8%	1.8%	
Phillips High School	4347	23.1%	37.5%	29.4%	17.9%	19.6%	18.6%	0.0%	1.8%	1.0%	23.1%	25.0%	25.5%	17.9%	10.7%	13.7%	0.0%	0.0%	0.0%	0.0%	
Webster High School	6293	23.3%	34.8%	28.3%	6.7%	17.4%	11.3%	10.0%	13.0%	11.3%	6.7%	13.0%	9.4%	23.3%	8.7%	17.0%	0.0%	0.0%	0.0%	0.0%	
Sum:		30.1%	34.4%	32.4%	23.7%	22.6%	23.0%	6.0%	5.0%	5.4%	14.6%	15.5%	15.2%	14.3%	8.6%	11.4%	11.2%	12.6%	11.9%	1.3%	0.7%

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